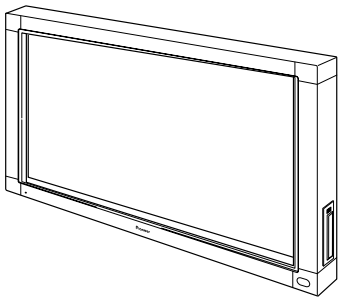
Pioneer sound.vision.soul

Service Manual



ORDER NO.
ARP3109

HAND WRITING DEVICE

PDK-50HW2

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	PDK-50HW2		
UCYVLDP	◯	AC100 – 240V	with AC adapter

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For details, refer to "Important symbols for good services" on the next page.

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PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

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T – ZZB NOV. 2001 Printed in Japan

[Important symbols for good services]
In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely.
When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount.For replacement parts or tools, the prescribed ones should be used.

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

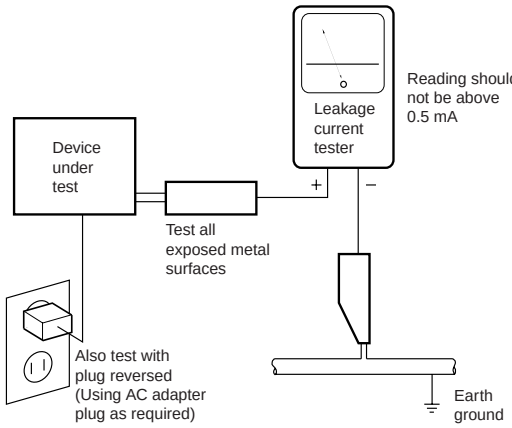
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.


Reading should not be above 0.5 mA
Leakage current tester
Device under test
+
–
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

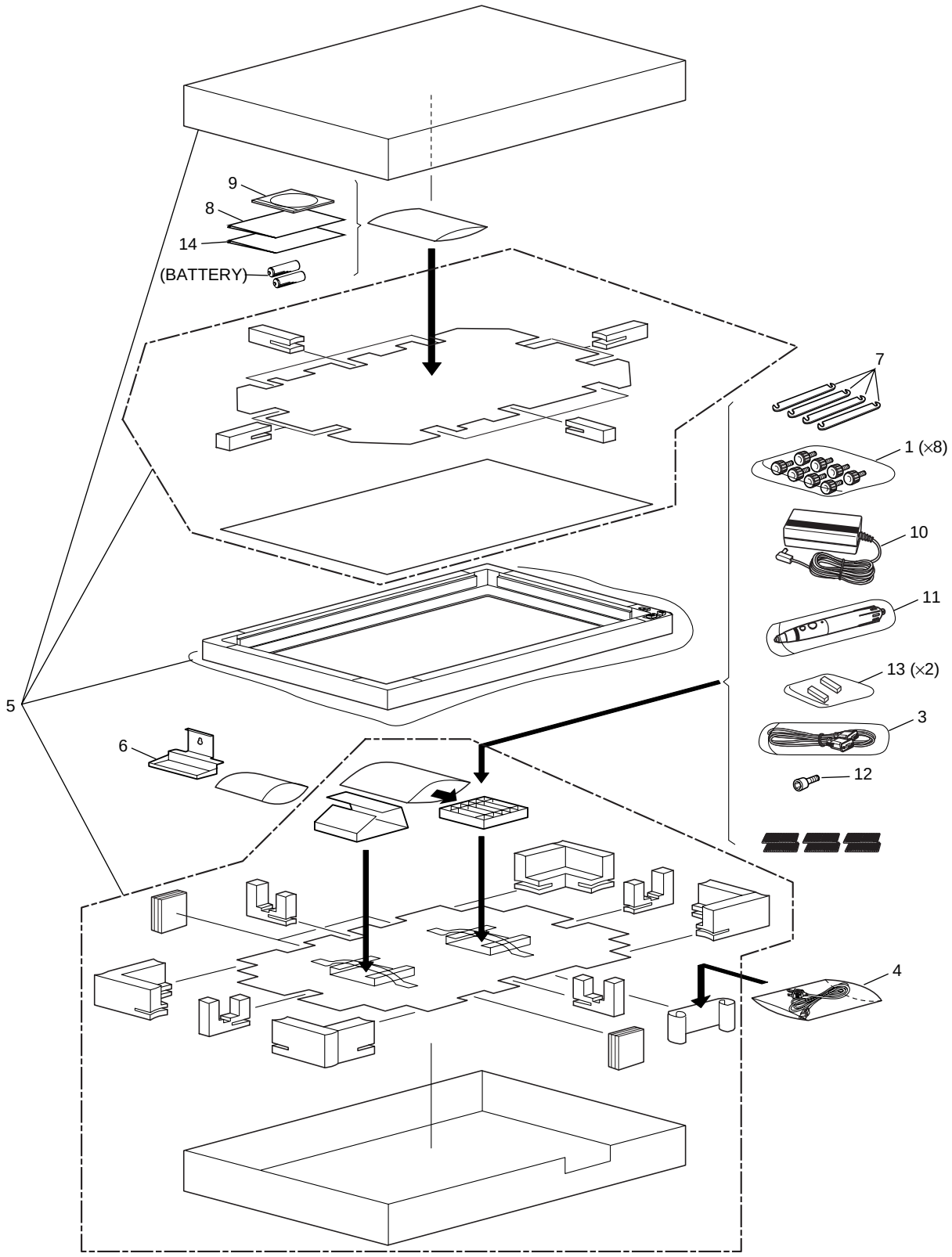
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS AND PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 HAND WRITING DEVICE [PDK-50HW2]

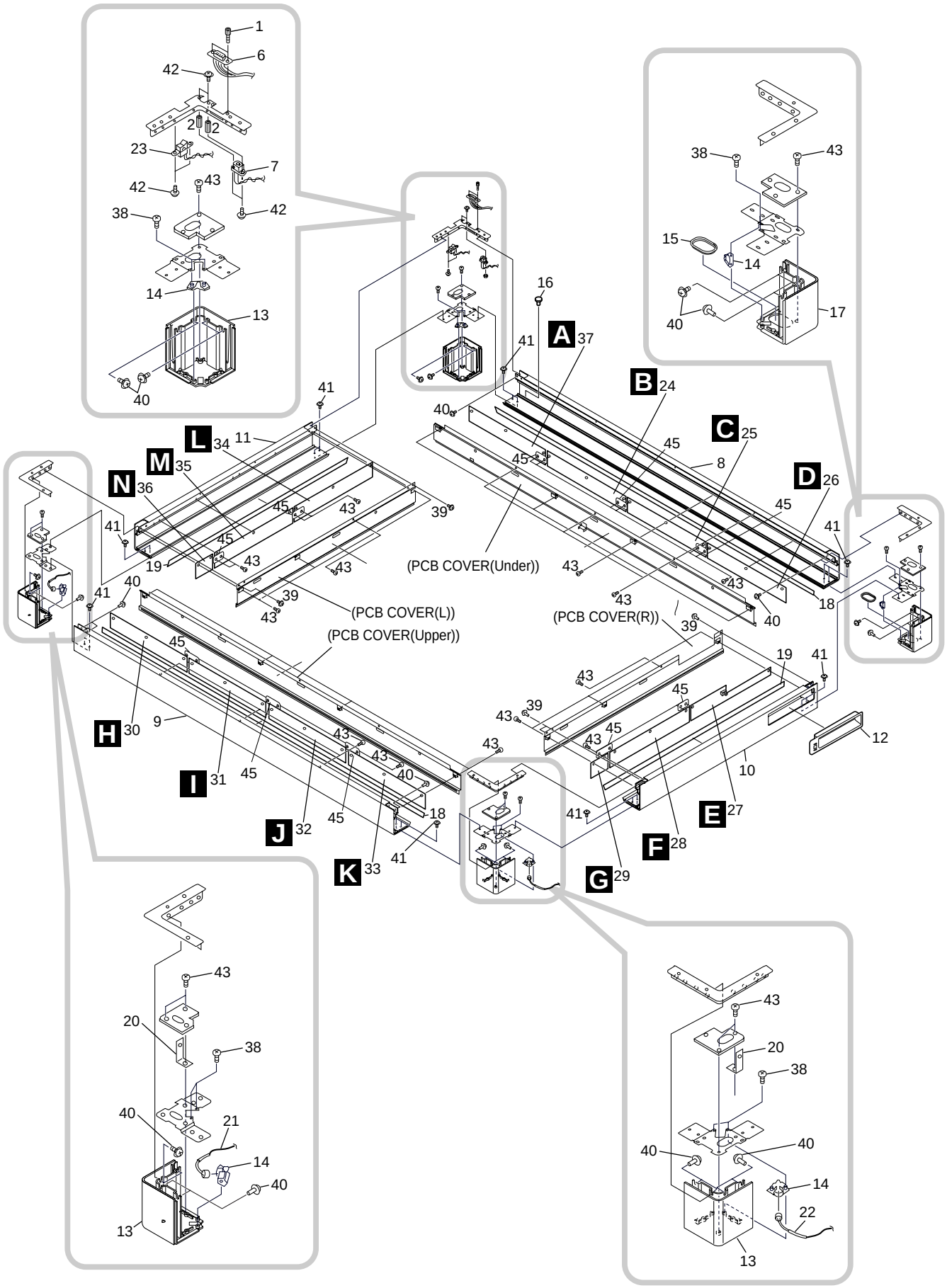
2.1.1 PACKING



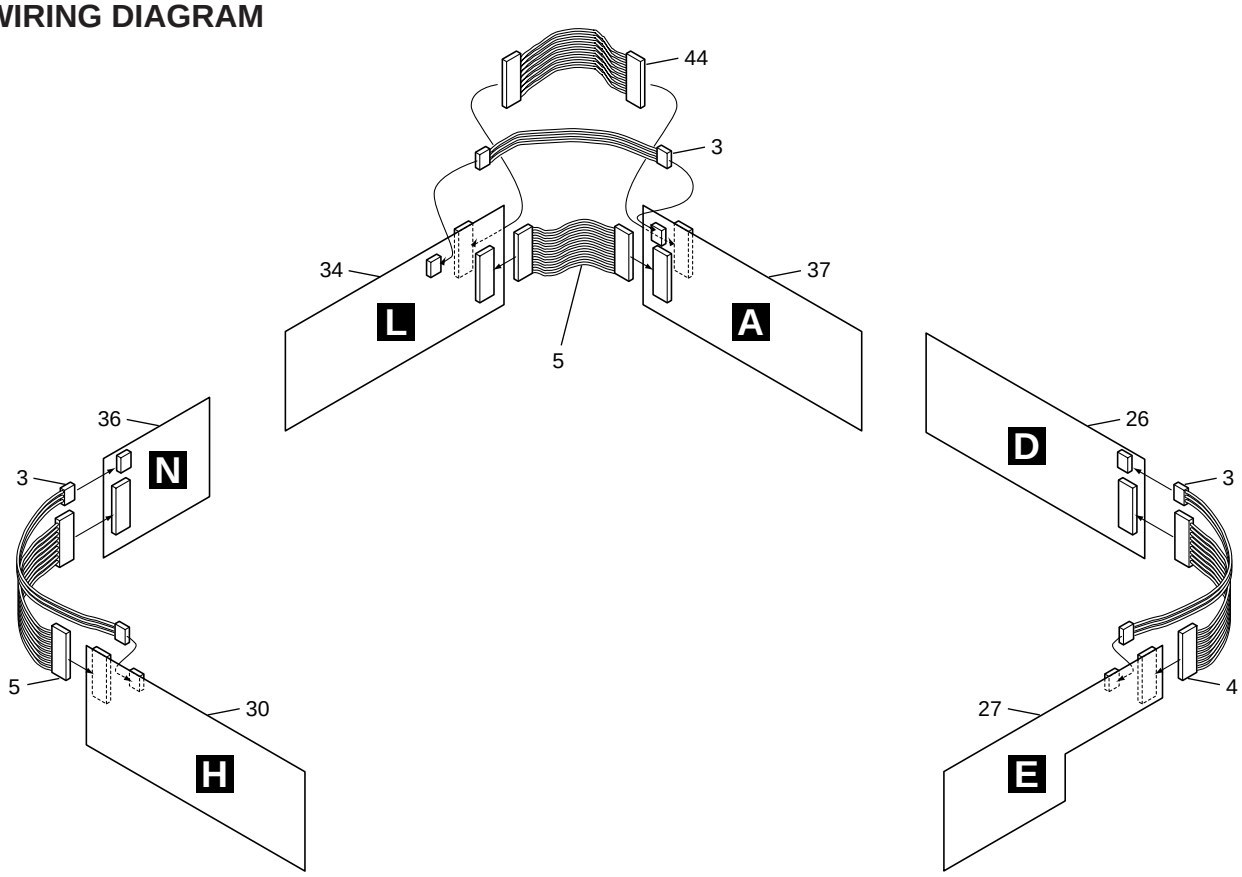
PACKING PARTS LIST

Mark	No.	Description	Part No.
	1	Knurled Fingerbolts	AZB1443
	2	• • • • •	
	3	RS-232C Cable	AZD1110
⚠	4	AC Power Cord(for US)	AZD1114
⚠	4	AC Power Cord(for Europe)	ADG1173
	5	Packing Set	AZH1146
	6	Pen Stand	AZN2485
	7	Mounting Bar	AZN2486
	8	Operating Instractions (Japanese, English, French, German)	AZR1053
	9	Driver Software	AZR1054
⚠	10	AC Adapter	AZX1057
	11	Pen	AZX1058
	12	Allen Bolt	SMZ80H200FNI
	13	Replacement Tip	AZE1119
	14	Operating Instractions (Italian, Dutch, Spanish)	AZR1057

2.1.2 CORTING SECTION



● WIRING DIAGRAM

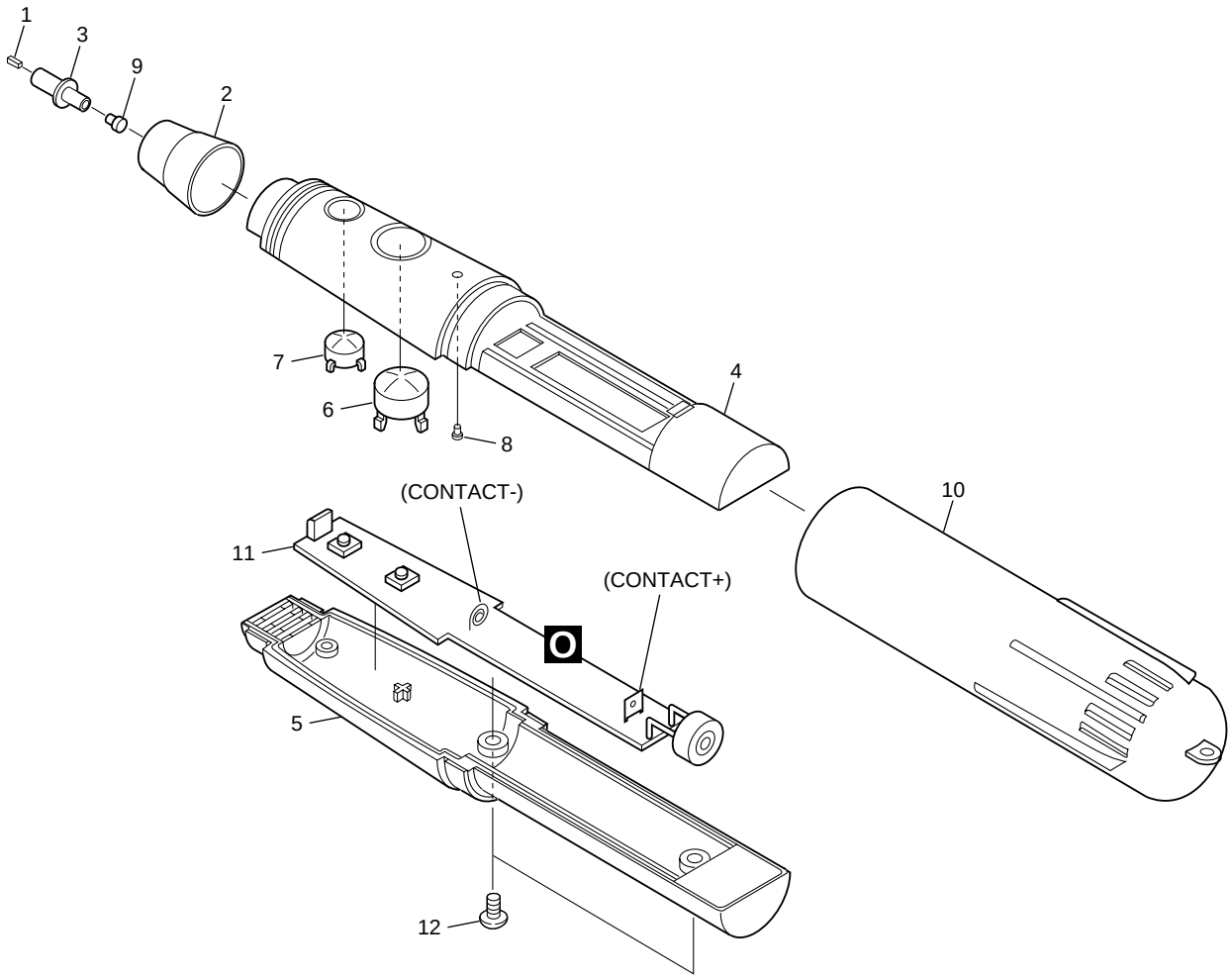


CORTING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Hexagon Nat	AZB1432
	2	Nat	AZB1433
	3	3P Assy	AZD1106
	4	10P Assy	AZD1107
	5	14P Assy	AZD1108
	6	232C Assy	AZK1138
	7	DC Assy	AZK1139
	8	Frame(Lower)	AZN2418
	9	Frame(Upper)	AZN2419
	10	Frame(Right)	AZN2484
	11	Frame(Left)	AZN2421
	12	Escutcheon	AZN2422
	13	Corner	AZN2423
	14	Sensor Holder	AZN2425
	15	Filter RC	AZN2426
	16	Filter LED	AZN2429
	17	Corner R	AZN2449
	18	Filter UL	AZN2450
	19	Filter LR	AZN2451
	20	Earth Plate	AZN2454
	21	SS Sensor A	AZP1161
	22	SS Sensor B	AZP1162
	23	SW Assy	AZS1137
	24	LED-B Assy	AZW1170
	25	LED-C Assy	AZW1171

Mark	No.	Description	Part No.
	26	LED-D Assy	AZW1172
	27	LED-E Assy	AZW1185
	28	LED-F Assy	AZW1174
	29	LED-G Assy	AZW1175
	30	Sensor-H Assy	AZW1176
	31	Sensor-I Assy	AZW1177
	32	Sensor-J Assy	AZW1178
	33	Sensor-K Assy	AZW1179
	34	Sensor-L Assy	AZW1180
	35	Sensor-M Assy	AZW1181
	36	Sensor-N Assy	AZW1182
	37	LED-A Assy	AZW1184
	38	Screw	PBZ20P080FMC
	39	Screw	PMA30P080FMC
	40	Screw	PMB30P080FMC
	41	Screw	PMF30P060FMC
	42	Screw	PMB20P060FMC
	43	Screw	PBZ30P060FMC
	44	14P Assy (Red)	AZD1112
	45	Plate	AZN2491

2.1.3 PEN

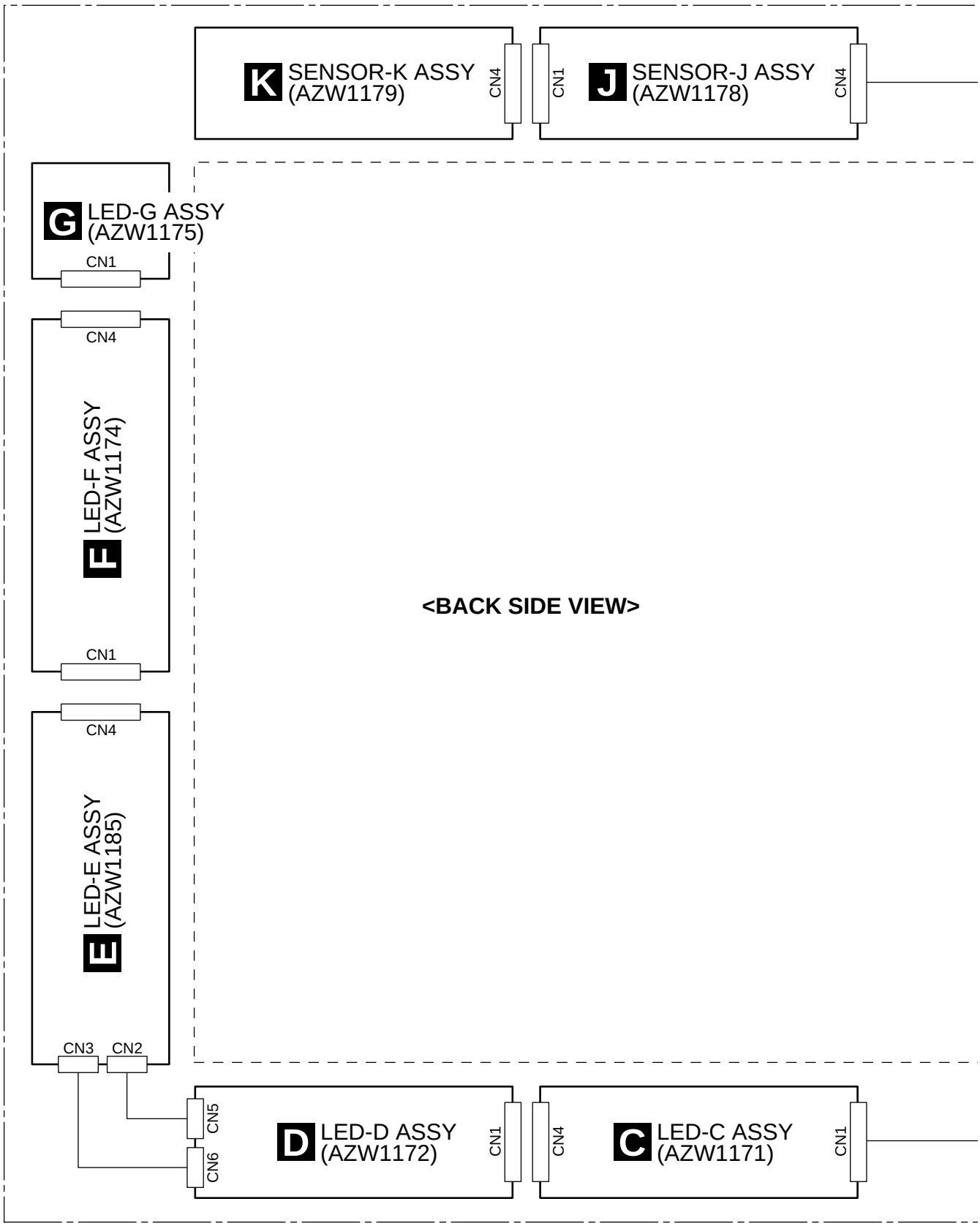


PEN PARTS LIST

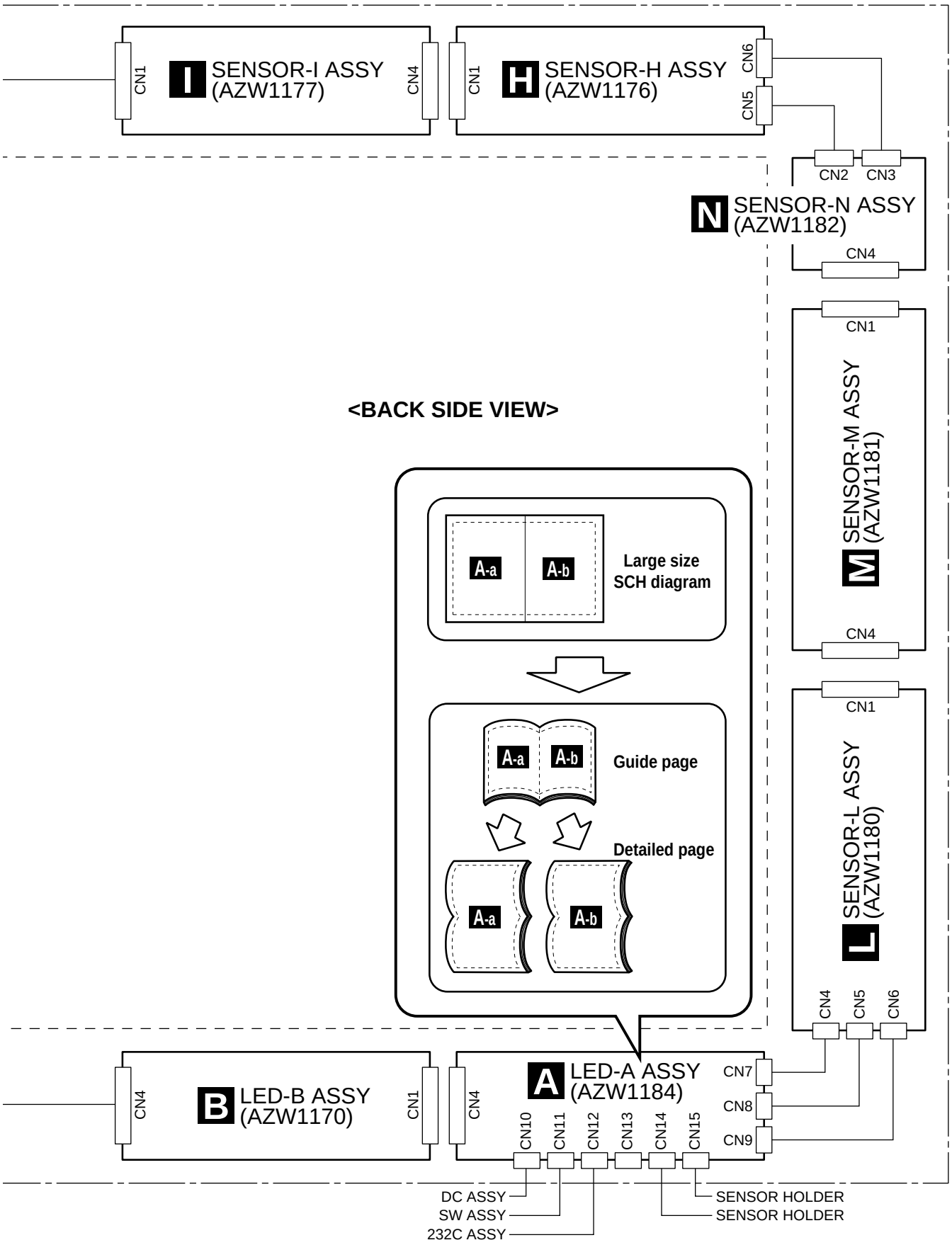
Mark	No.	Description	Part No.
	1	Replacement Tip (Felt)	AZE1119
	2	Cap	AZN2438
	3	Holder	AZN2439
	4	Cover T	AZN2440
	5	Cover B	AZN2441
	6	Key Top (Large)	AZN2443
	7	Key Top (Small)	AZN2444
	8	Filter	AZN2446
	9	Cushion Rubber	AZN2447
	10	Battery Cover Assy	AZN2455
	11	Pen PCB Assy	AZW1183
	12	Screw	PBZ20P080FMC

3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM



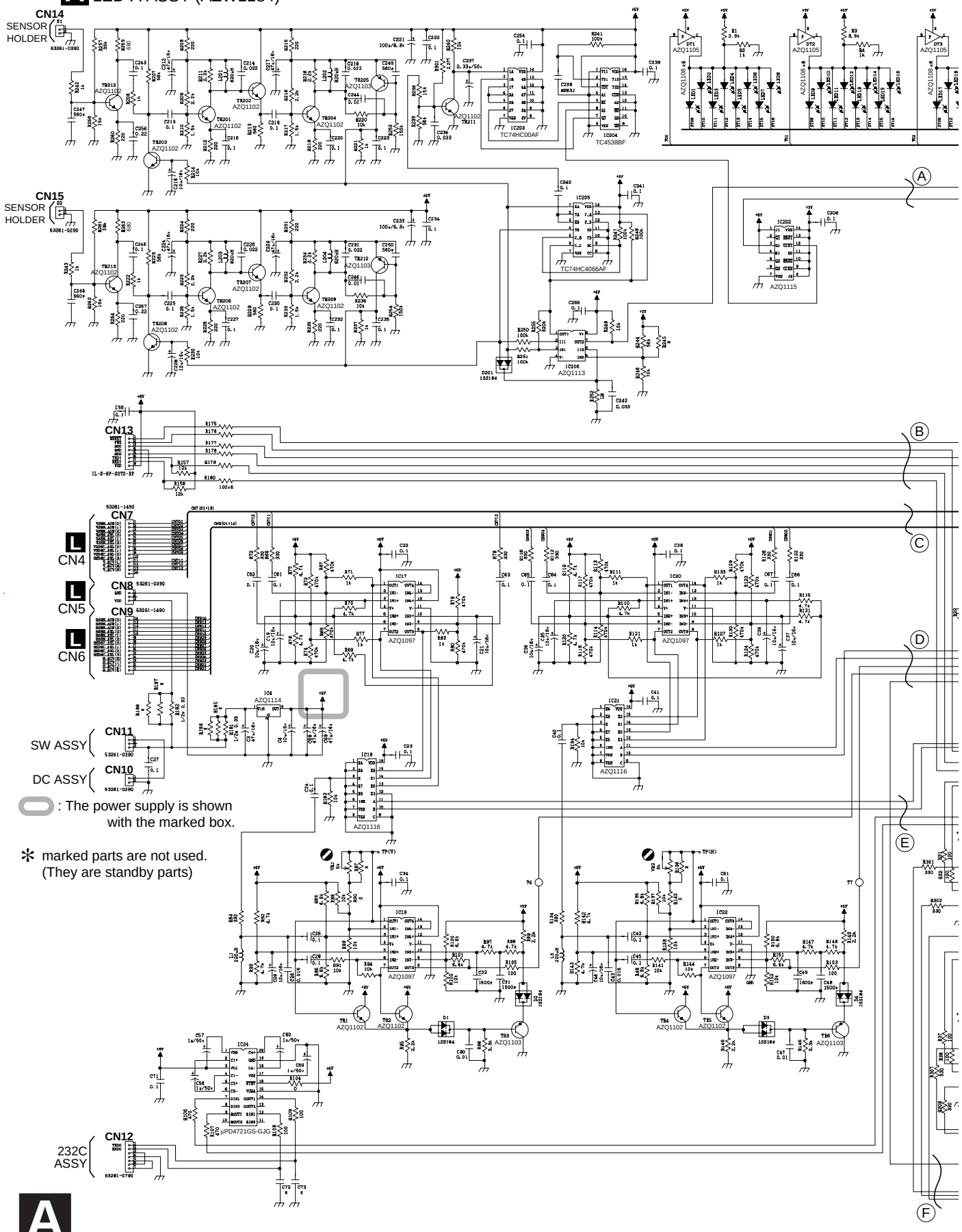
Note : When ordering service parts, be sure to refer to "EXPLOED VIEWS and PARTS LIST" or "PCB PARTS LIST".



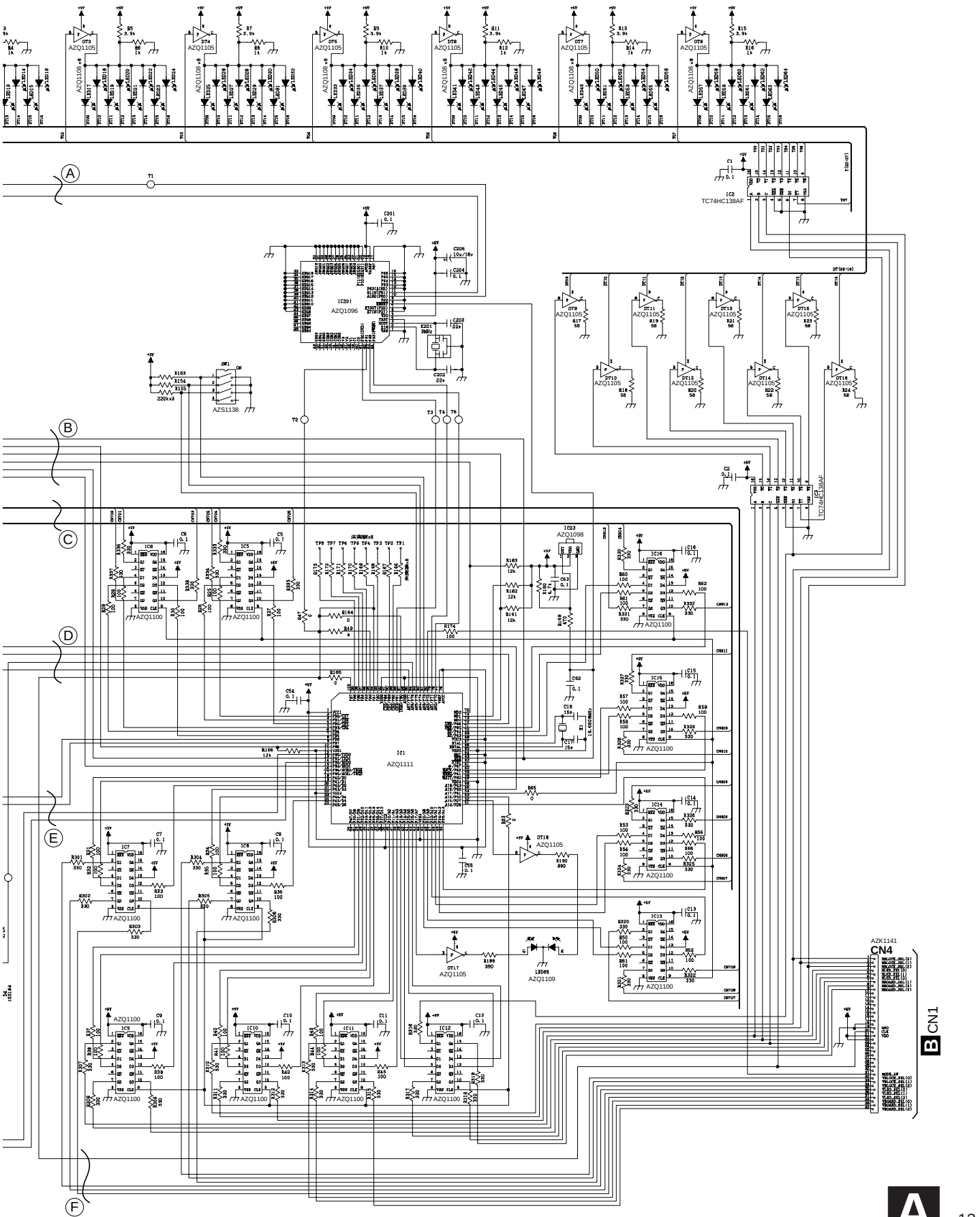
3.2 LED-A ASSY

A-a

A LED-A ASSY (AZW1184)

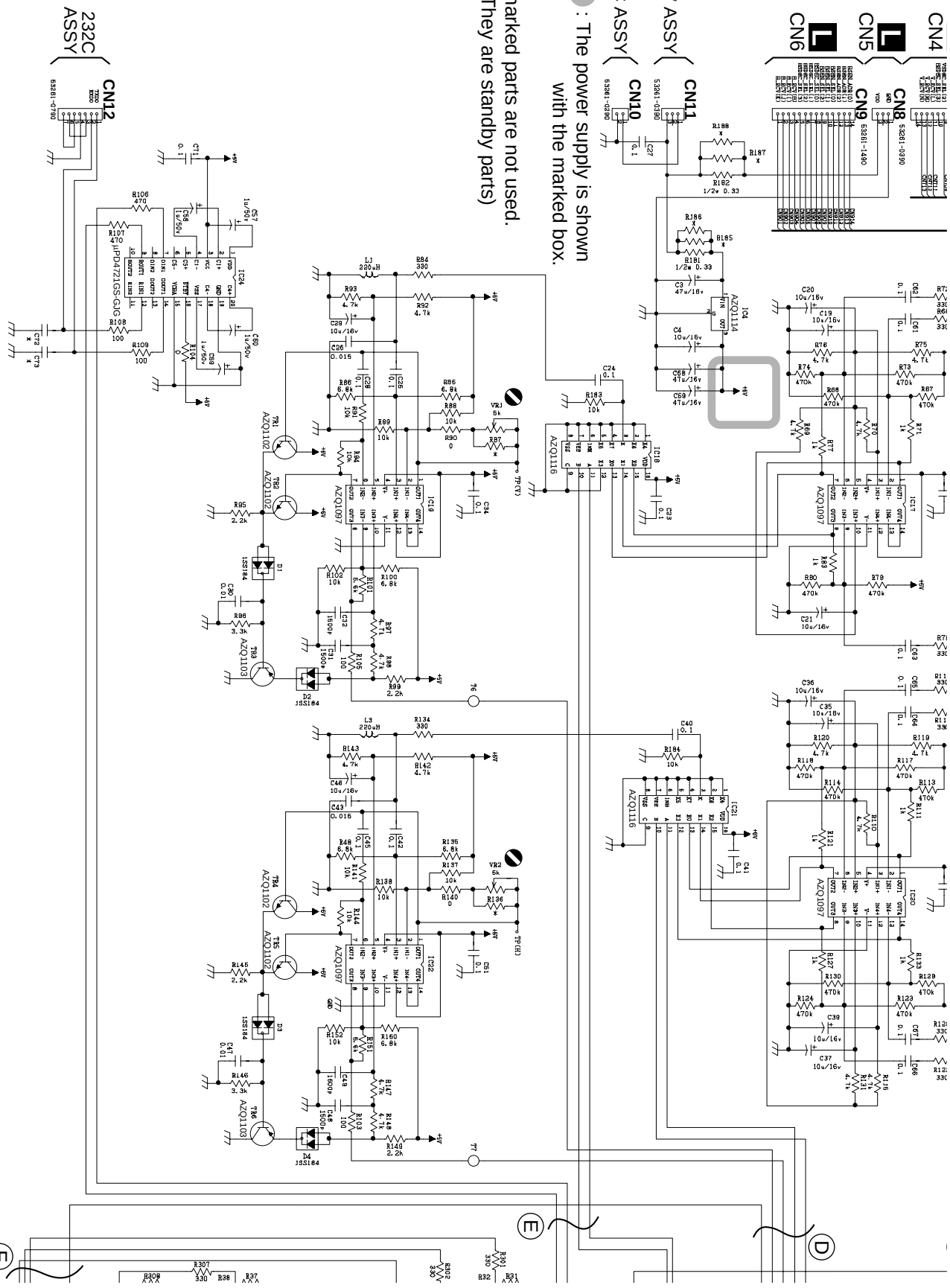


A-b


IC1
AZQ1111
IC201
AZQ1096
IC23
AZQ1098
IC2
TC74HC138AF
IC3
TC74HC138AF
AZS1138
AZQ1100
AZQ1105
AZQ1109
LED45
CN4
AZK1141
BCN1

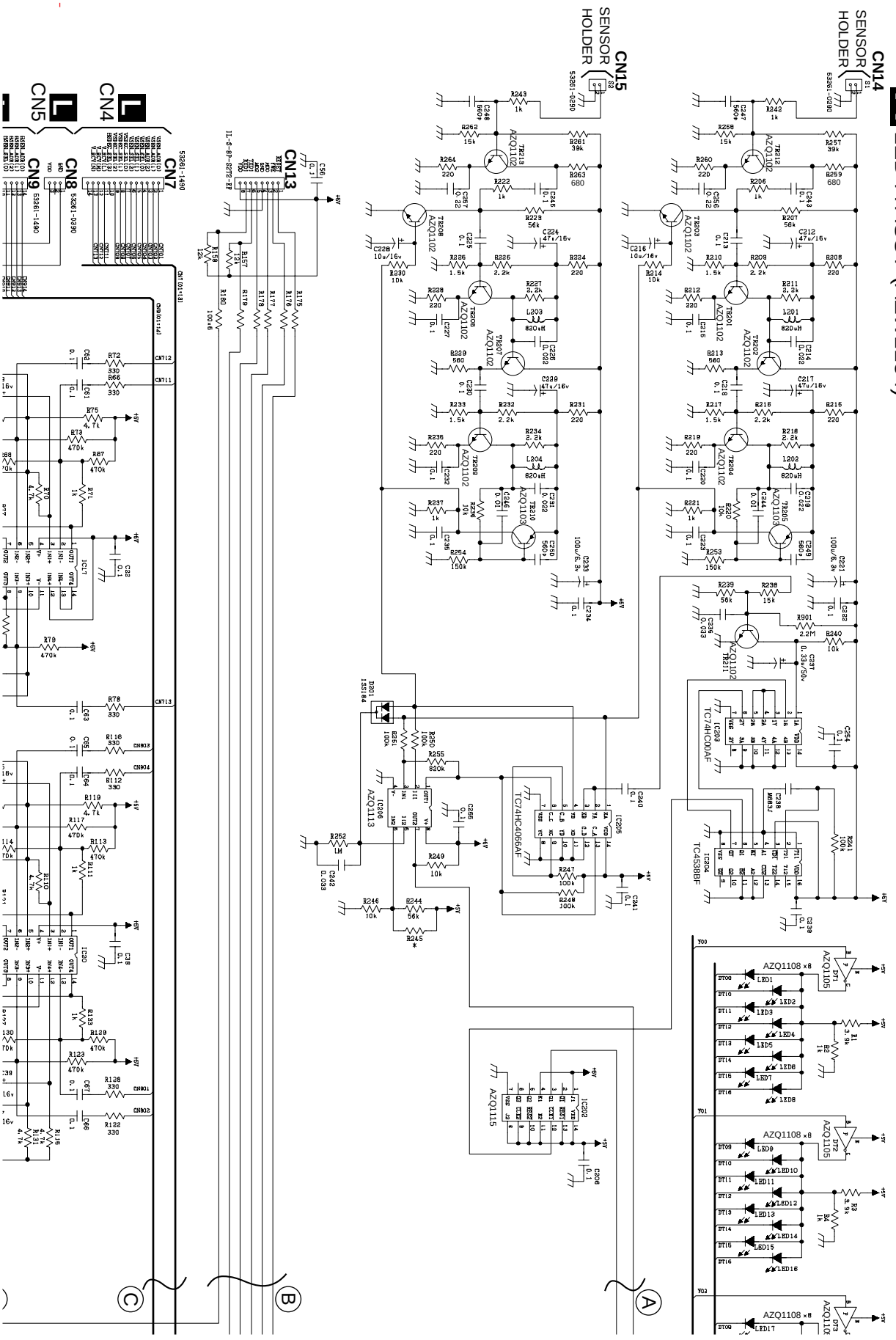
✻ marked parts are not used.
(They are standby parts)

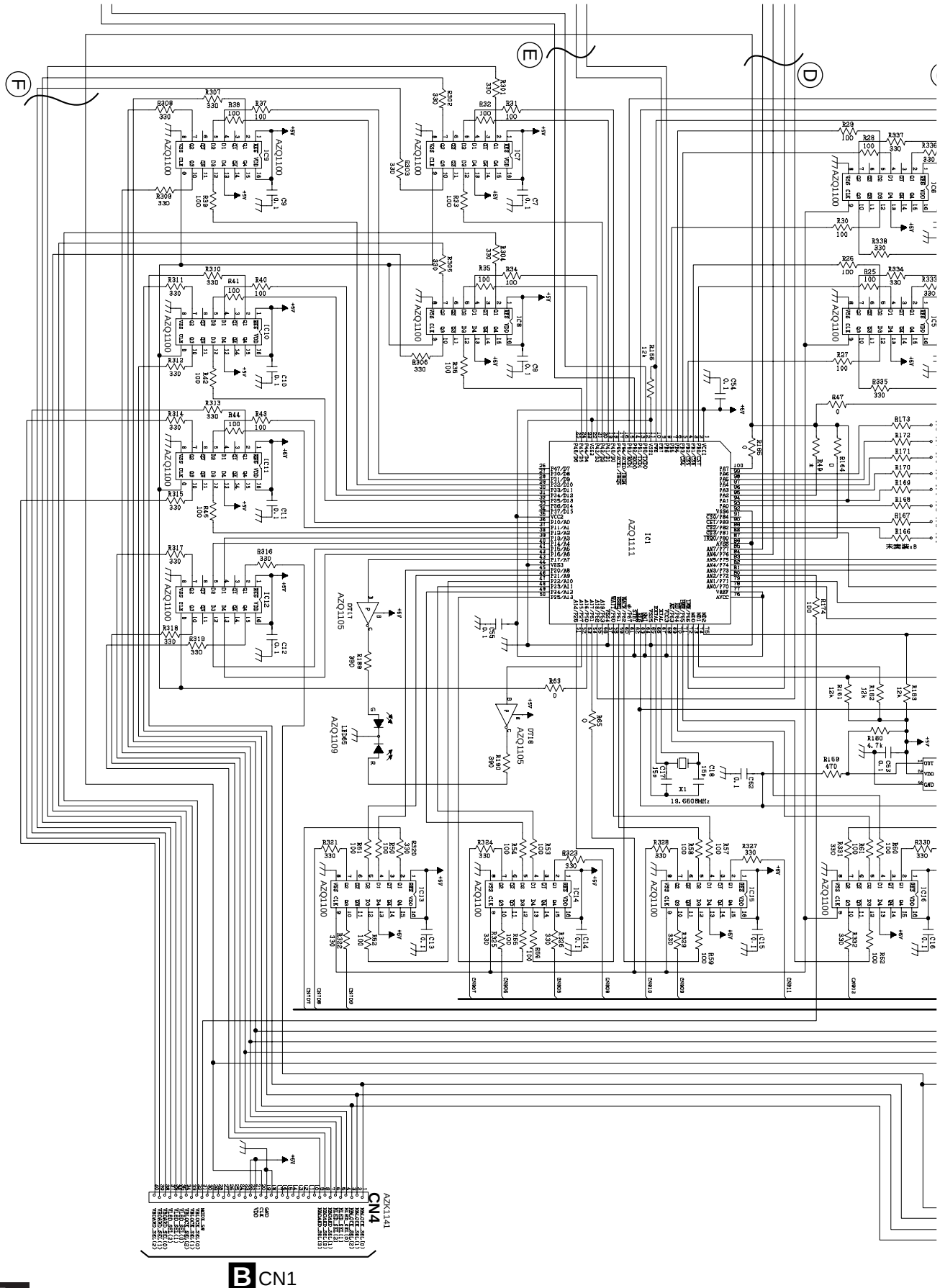
0 : The power supply is shown with the marked box.

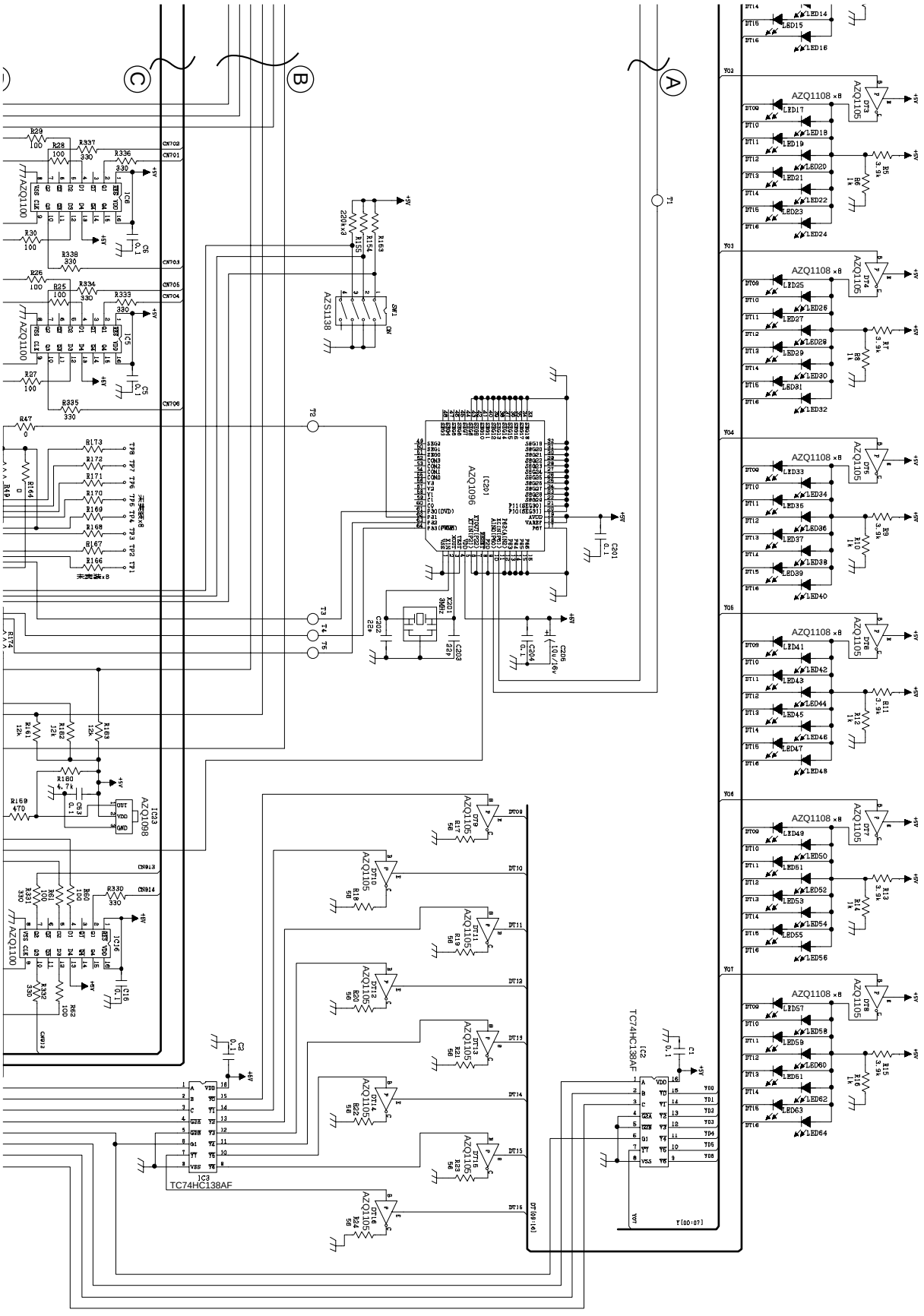


A-a A-b

A LED-A ASSY (AZW1184)




F
E
D
AZQ1100
AZQ1111
AZQ1105
AZQ1109
AZK1141
CN4
X1
18.6608MHz
B CN1


A
B
C
AZQ1108 ×8
AZQ1105
AZQ1096
TC74HC138AF
AZQ1100
AZS138
AZQ1098
LED1
LED2
LED3
LED4
LED5
LED6
LED7
LED8
LED9
LED10
LED11
LED12
LED13
LED14
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LED61
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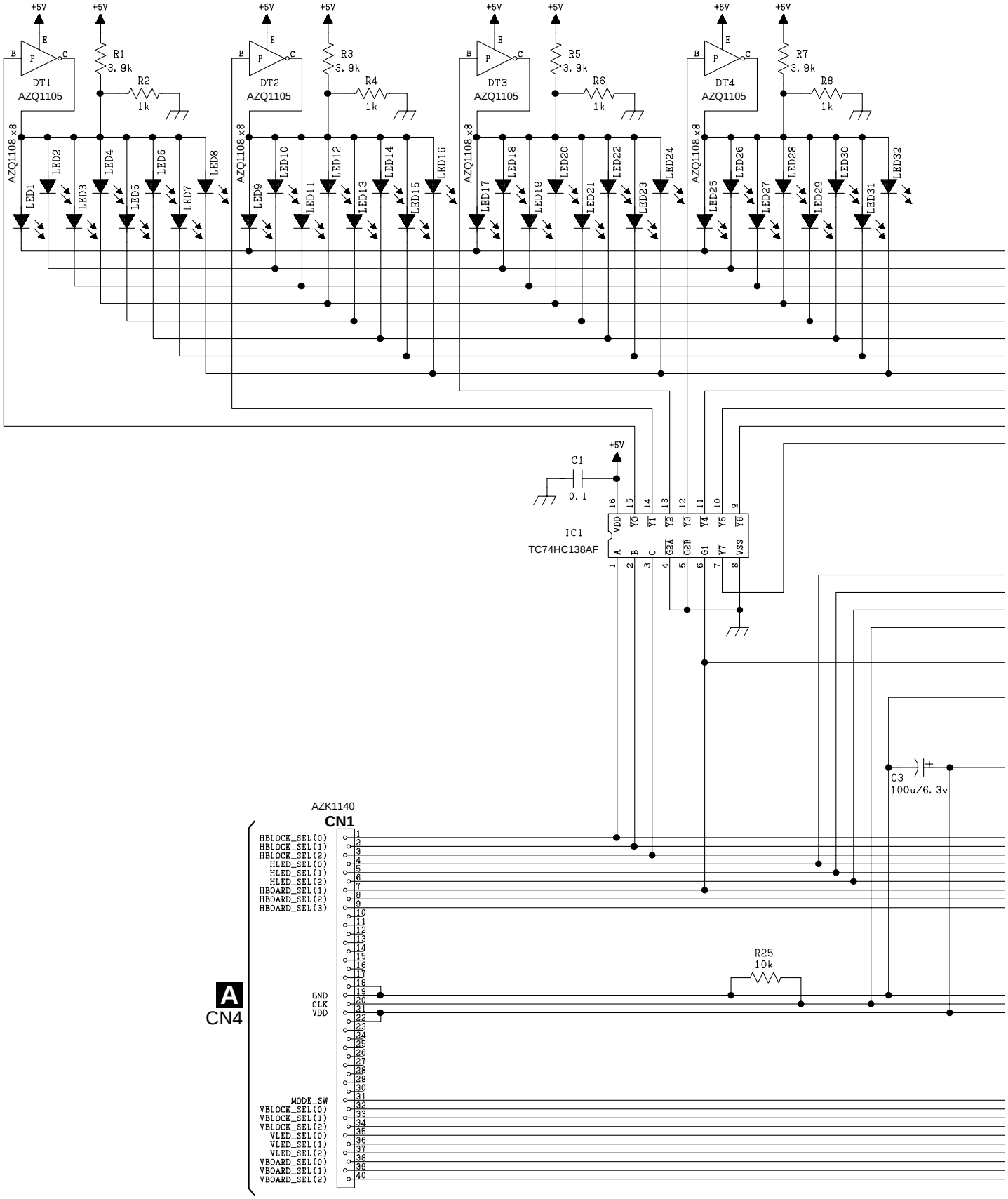
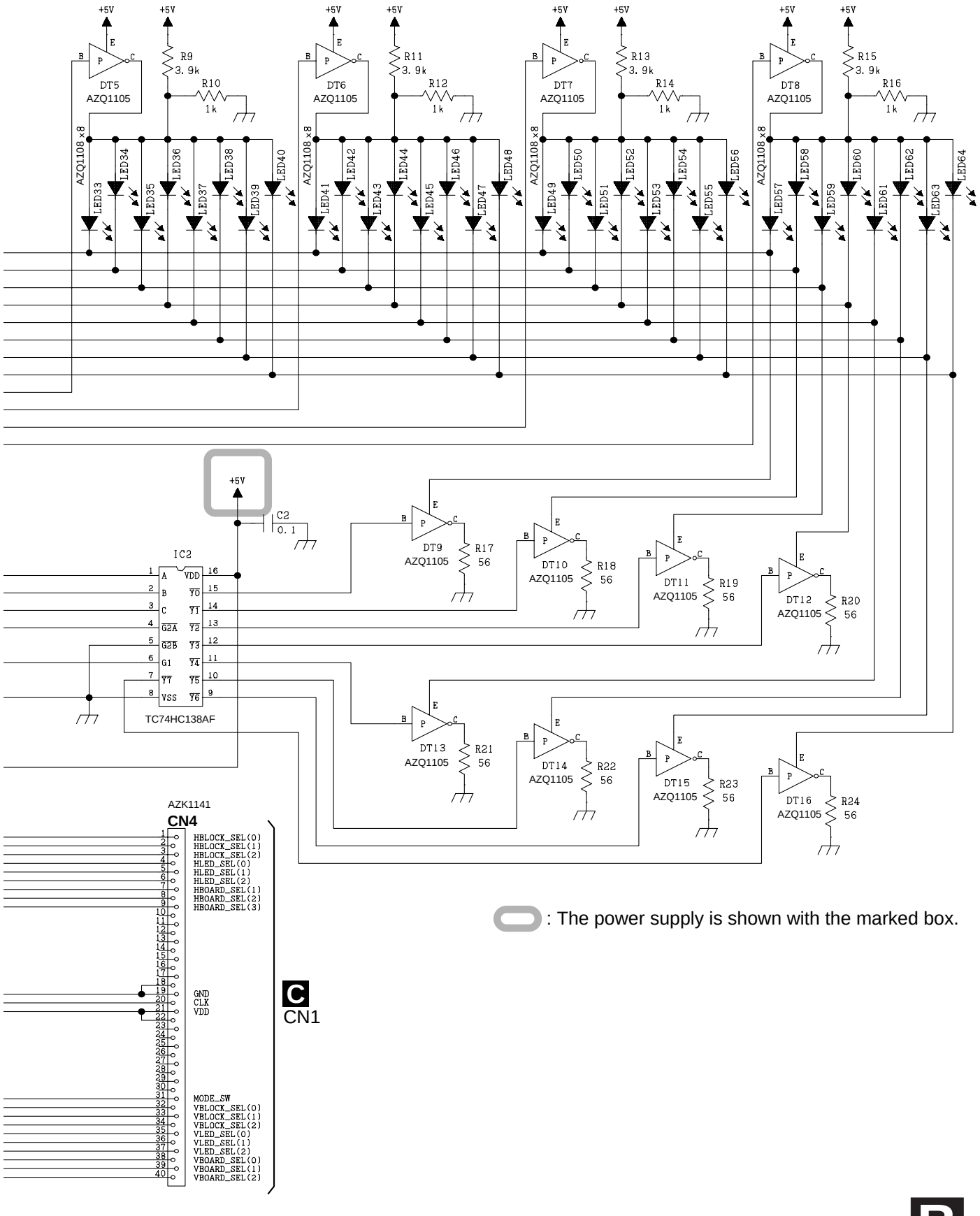
LED63
LED64

3.3 LED-B ASSY

B LED-B ASSY (AZW1170)

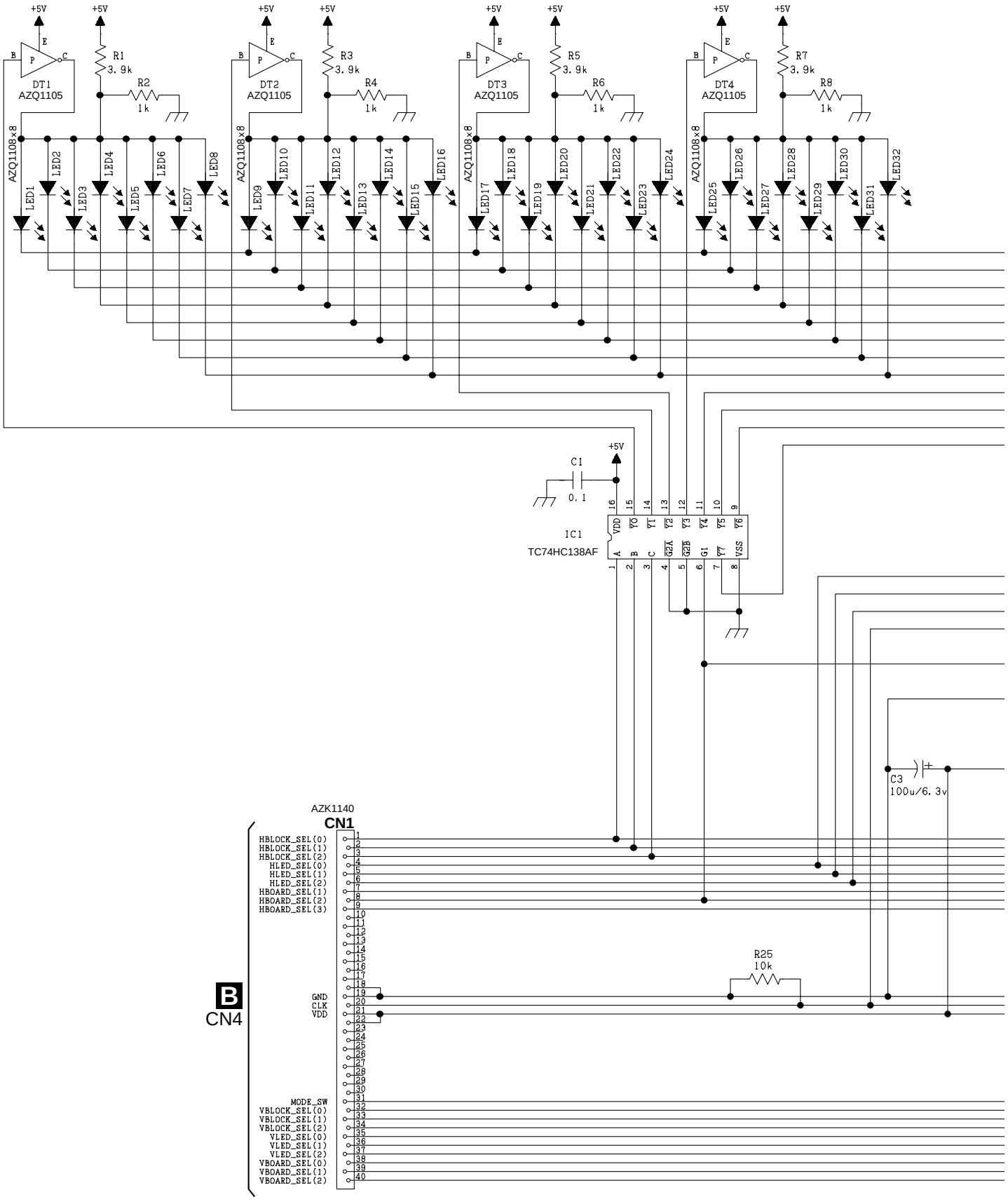


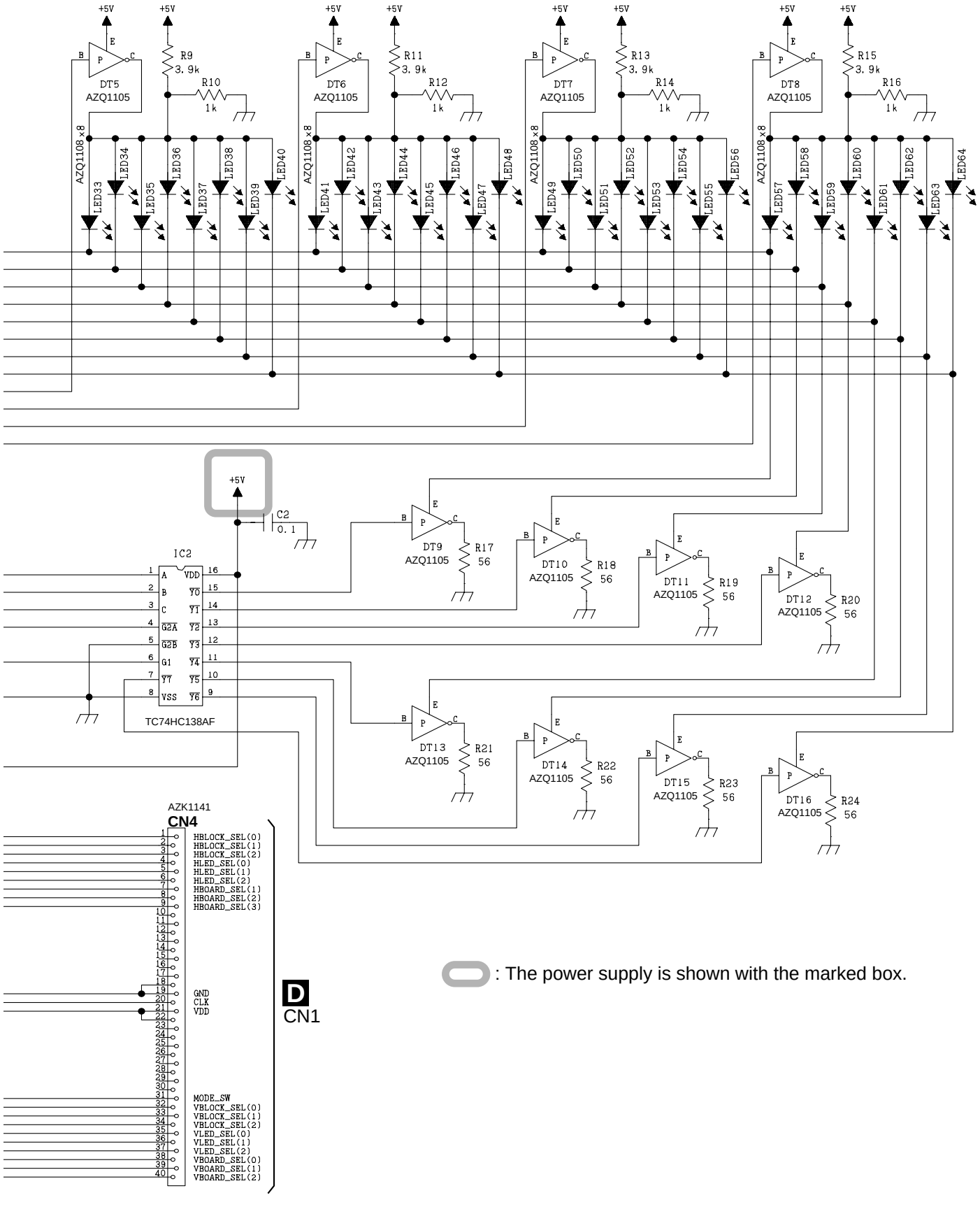


: The power supply is shown with the marked box.

3.4 LED-C ASSY

C LED-C ASSY (AZW1171)

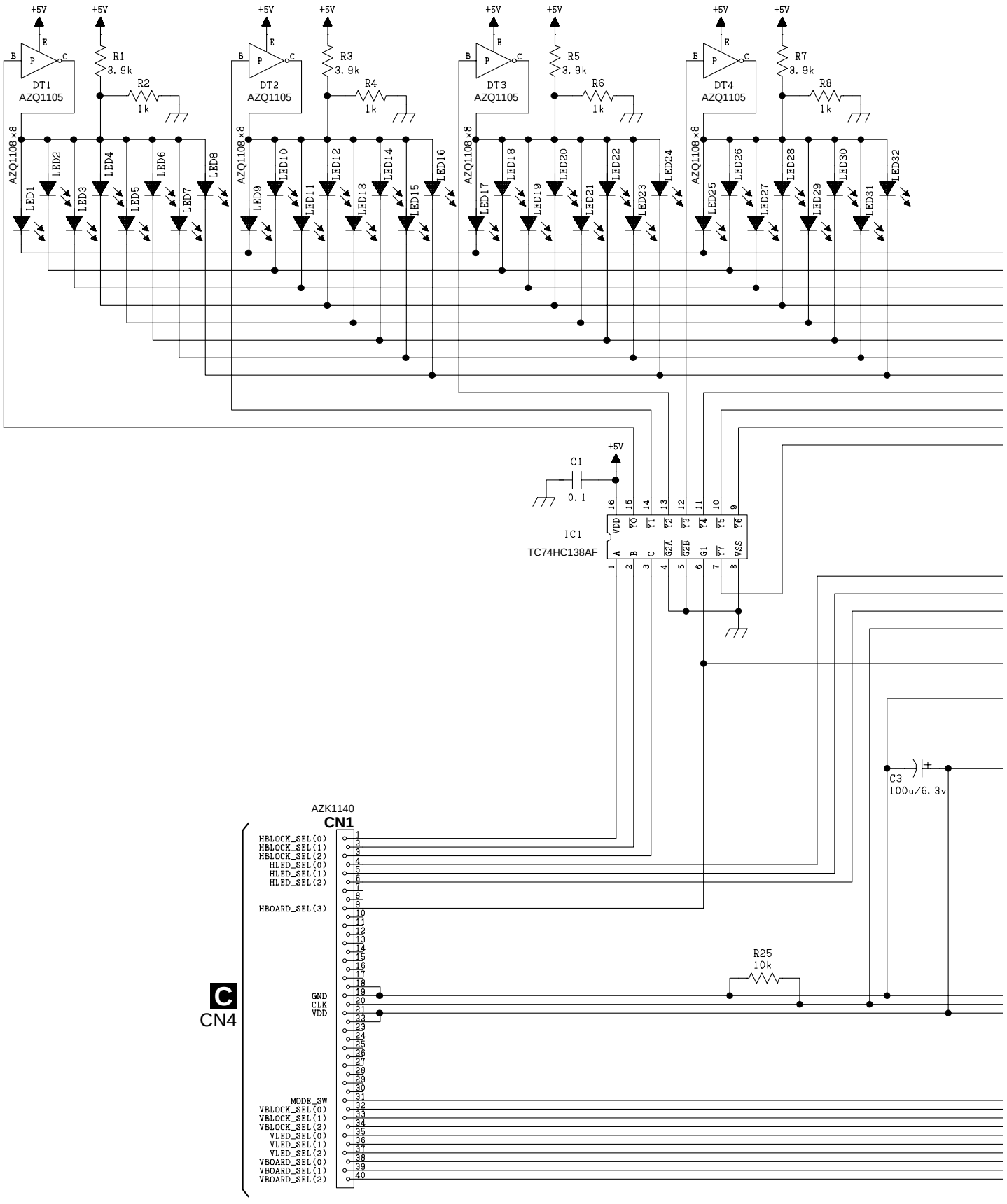


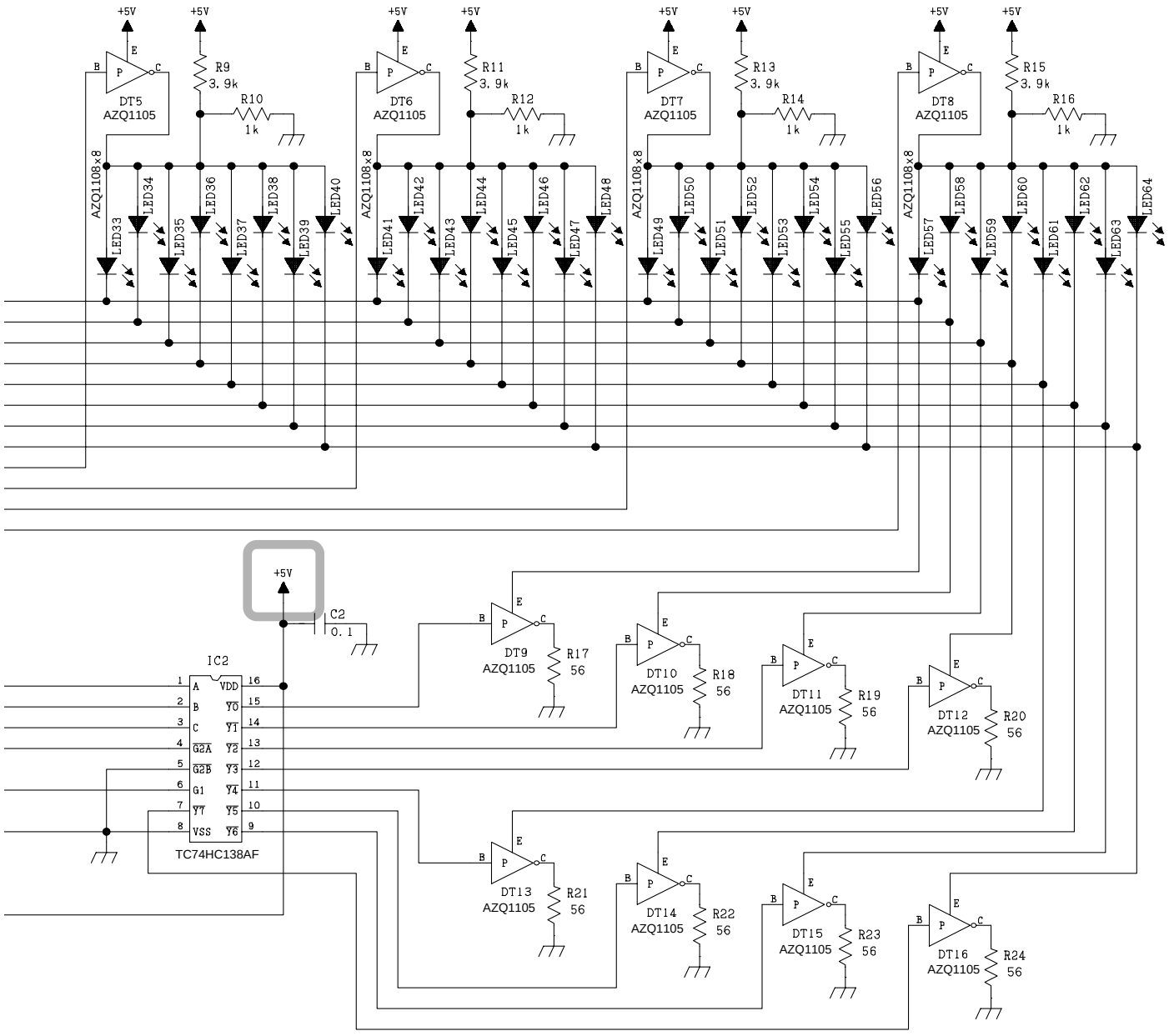


: The power supply is shown with the marked box.

3.5 LED-D ASSY

D LED-D ASSY (AZW1172)





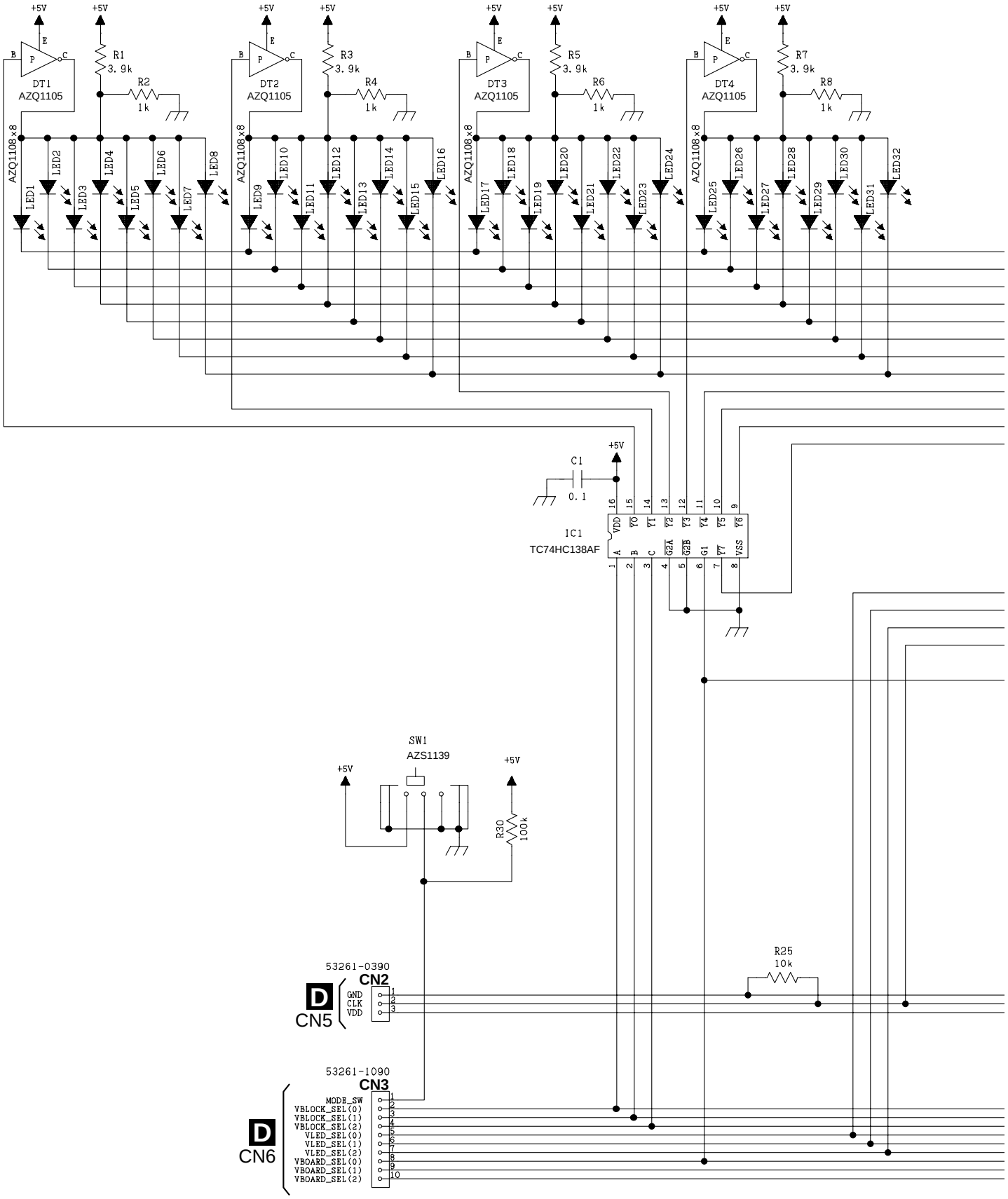
53261-0390
CN5
GND
CLK
VDD
E CN2

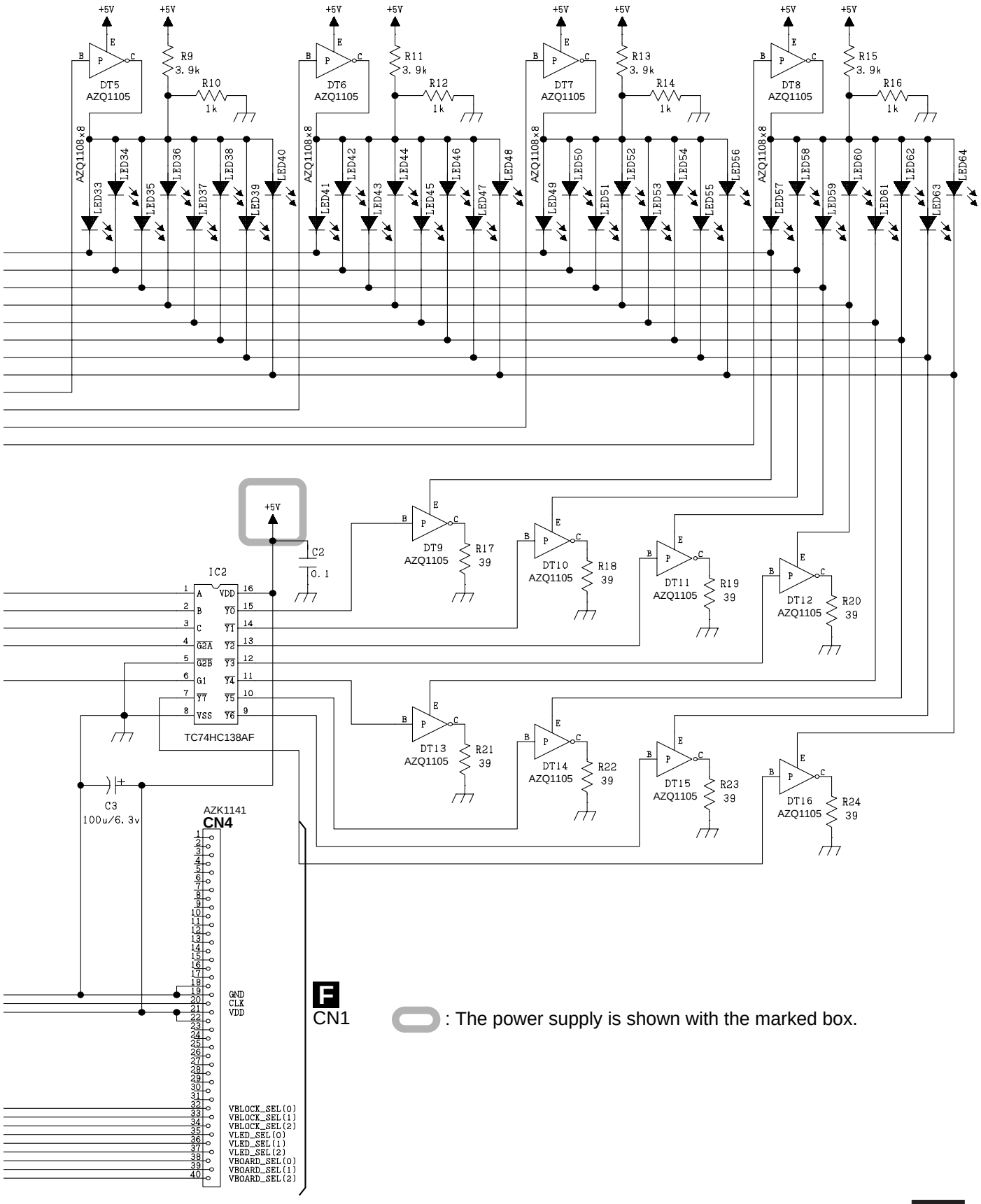
: The power supply is shown with the marked box.

53261-1090
CN6
MODE_SW
VBLOCK_SEL(0)
VBLOCK_SEL(1)
VBLOCK_SEL(2)
VLED_SEL(0)
VLED_SEL(1)
VLED_SEL(2)
VBOARD_SEL(0)
VBOARD_SEL(1)
VBOARD_SEL(2)
E CN3

3.6 LED-E ASSY

E LED-E ASSY (AZW1185)





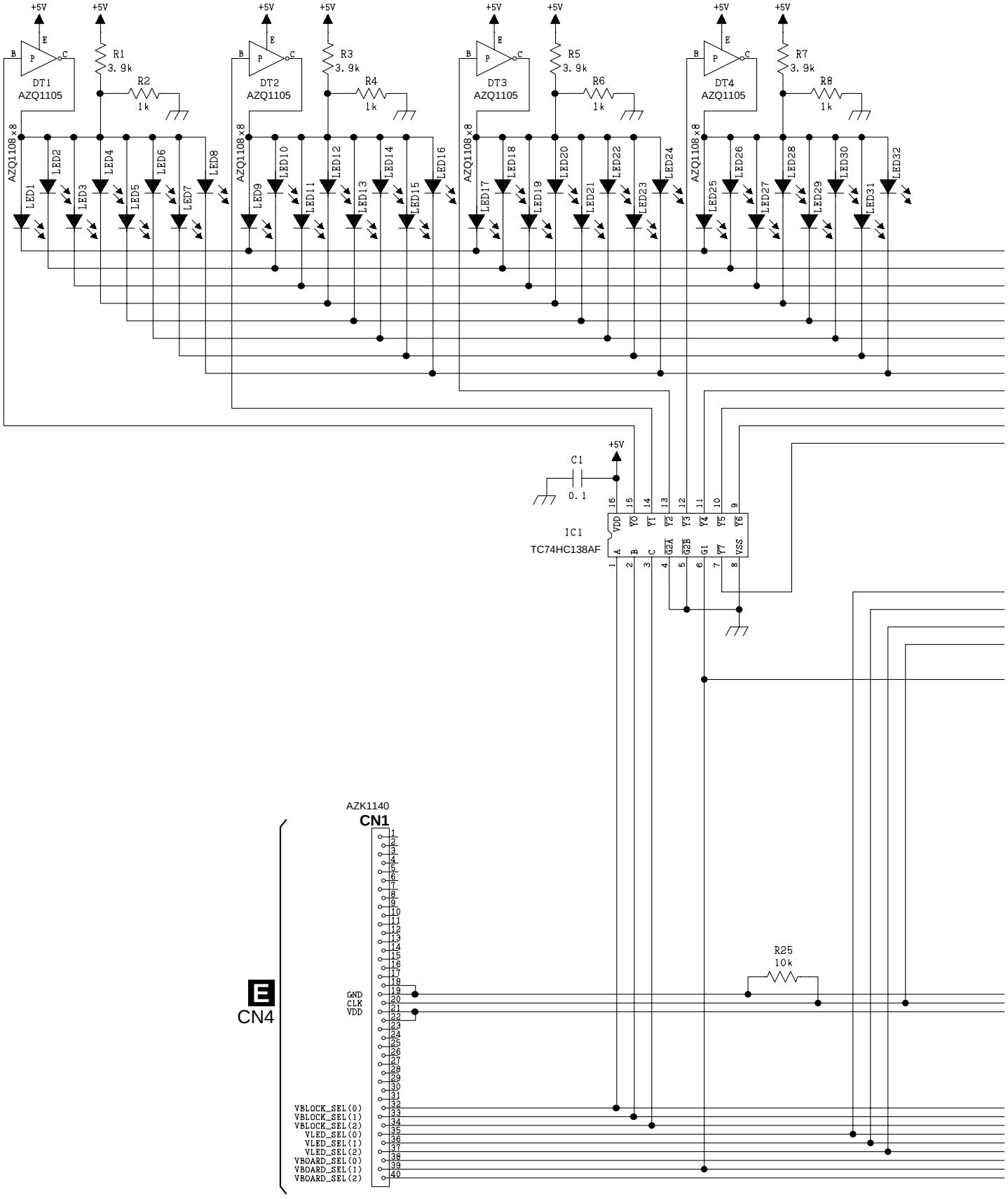
F

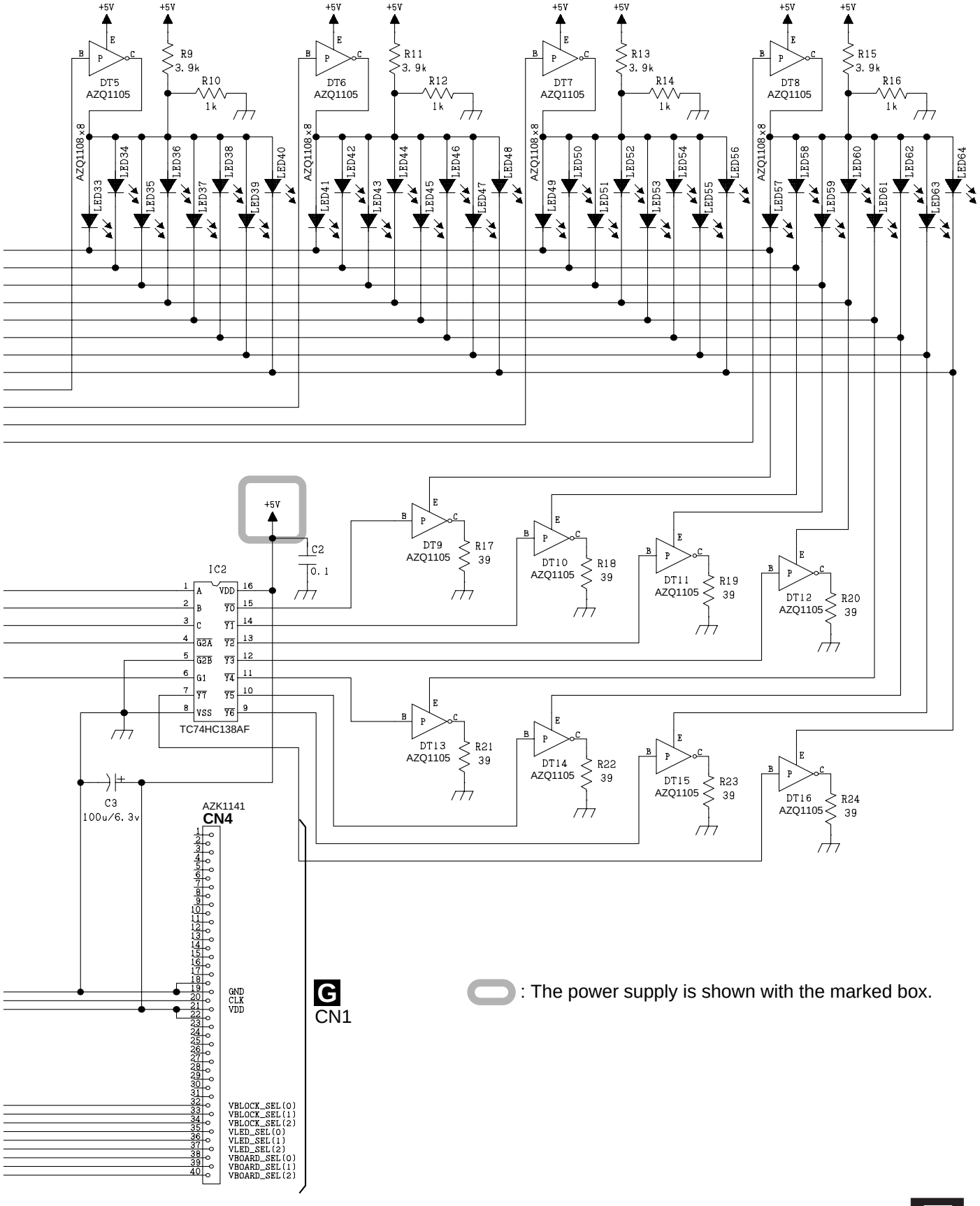
CN1

: The power supply is shown with the marked box.

3.7 LED-F ASSY

F LED-F ASSY (AZW1174)

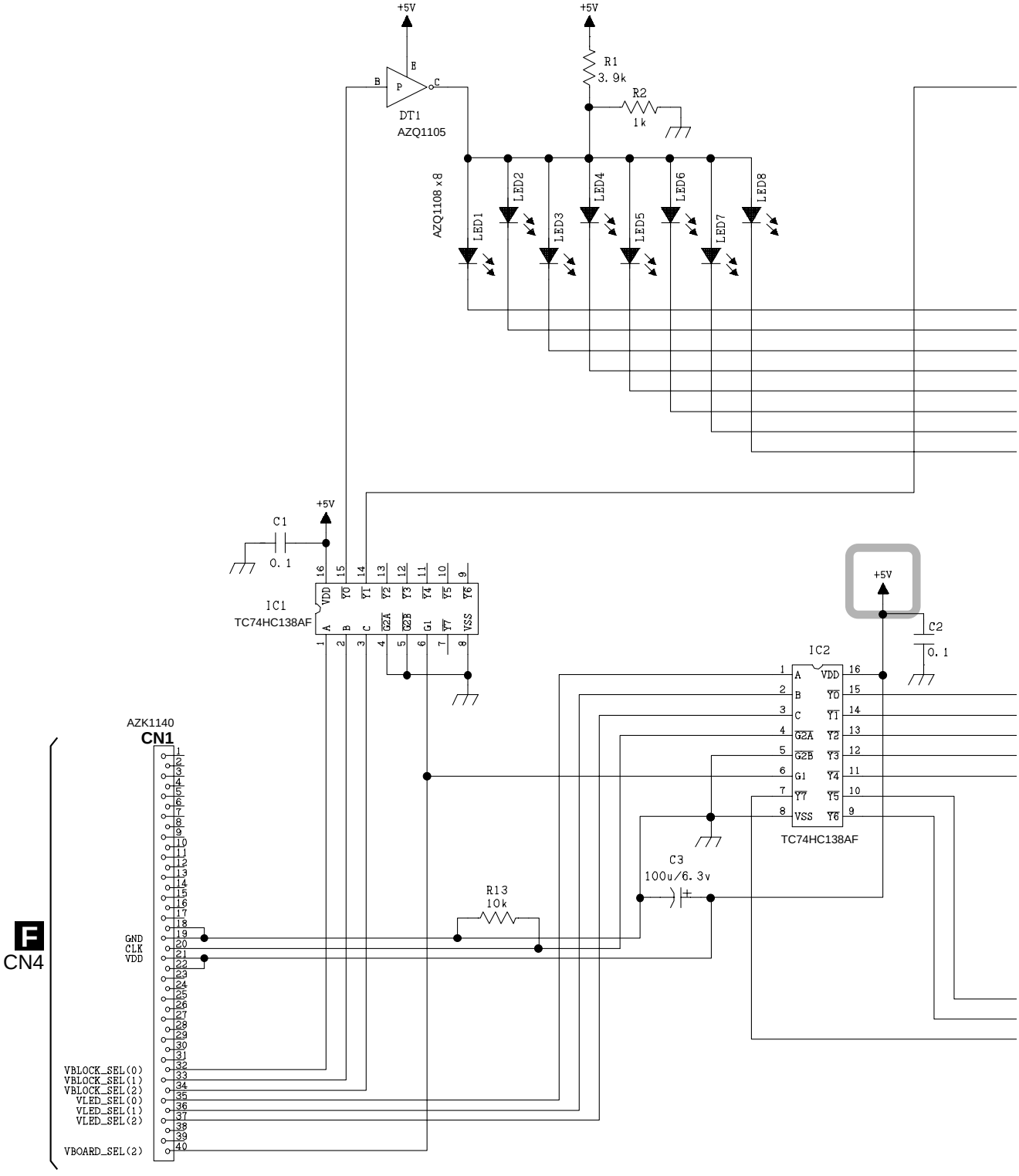


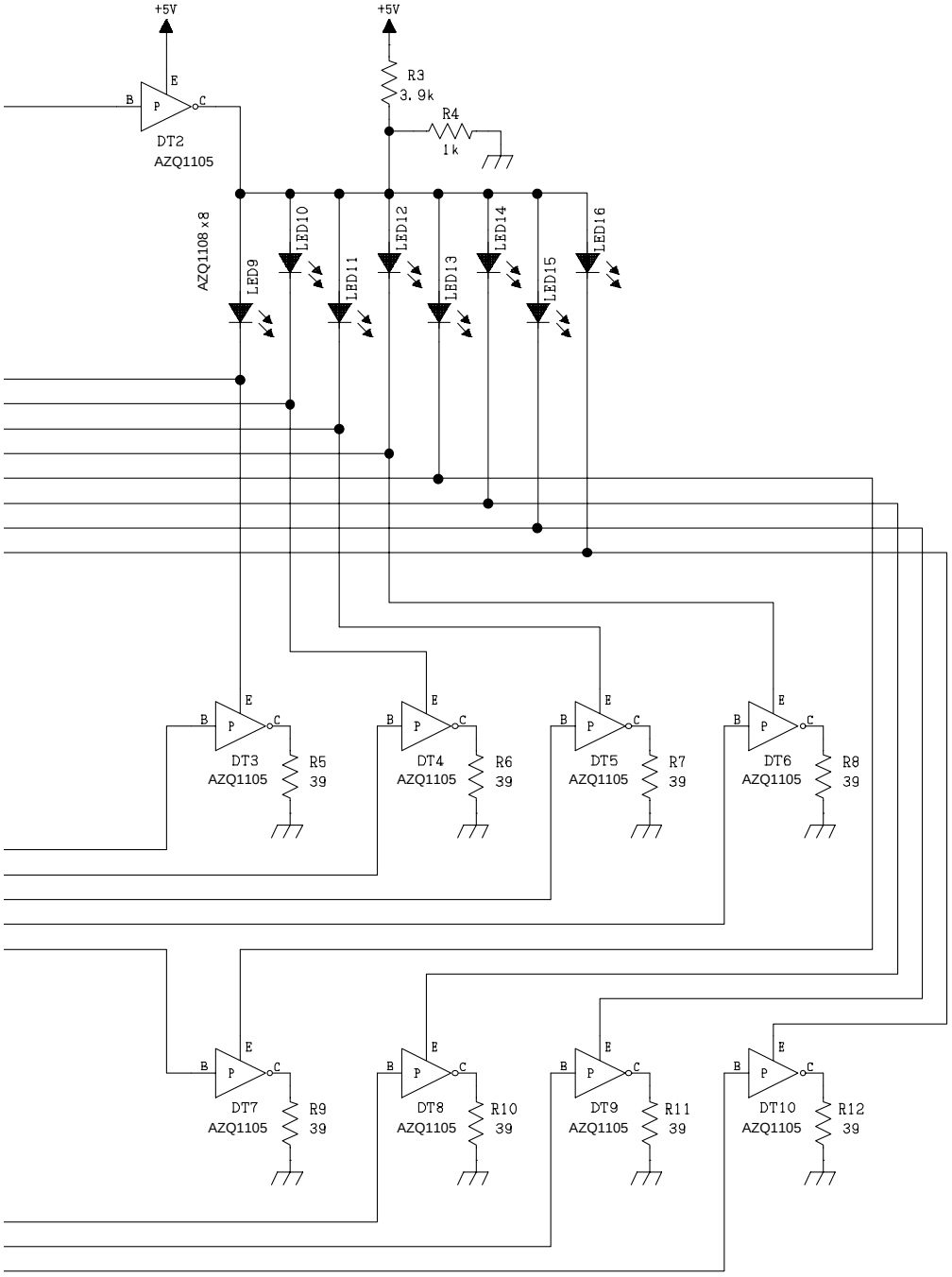


: The power supply is shown with the marked box.

3.8 LED-G ASSY

G LED-G ASSY (AZW1175)

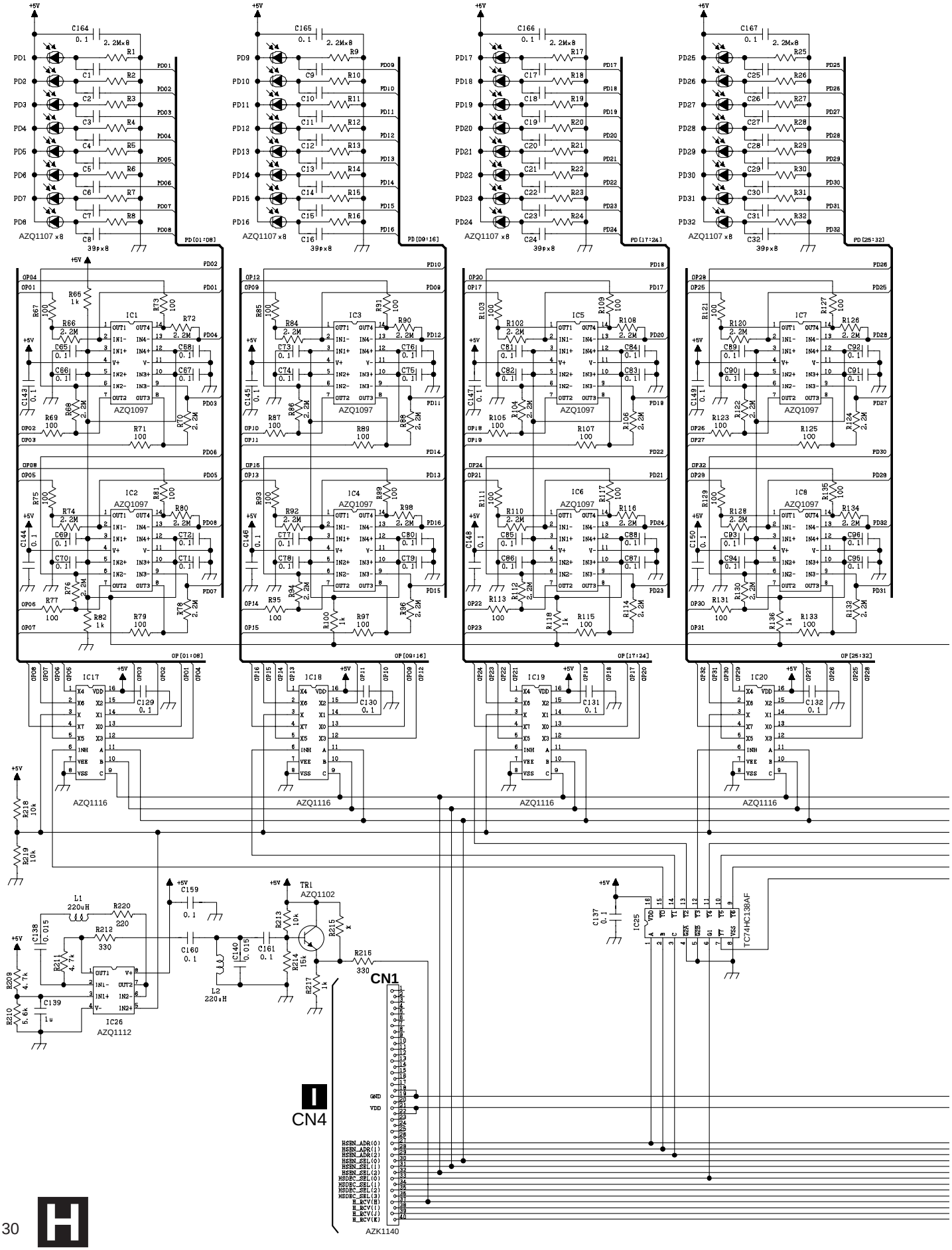


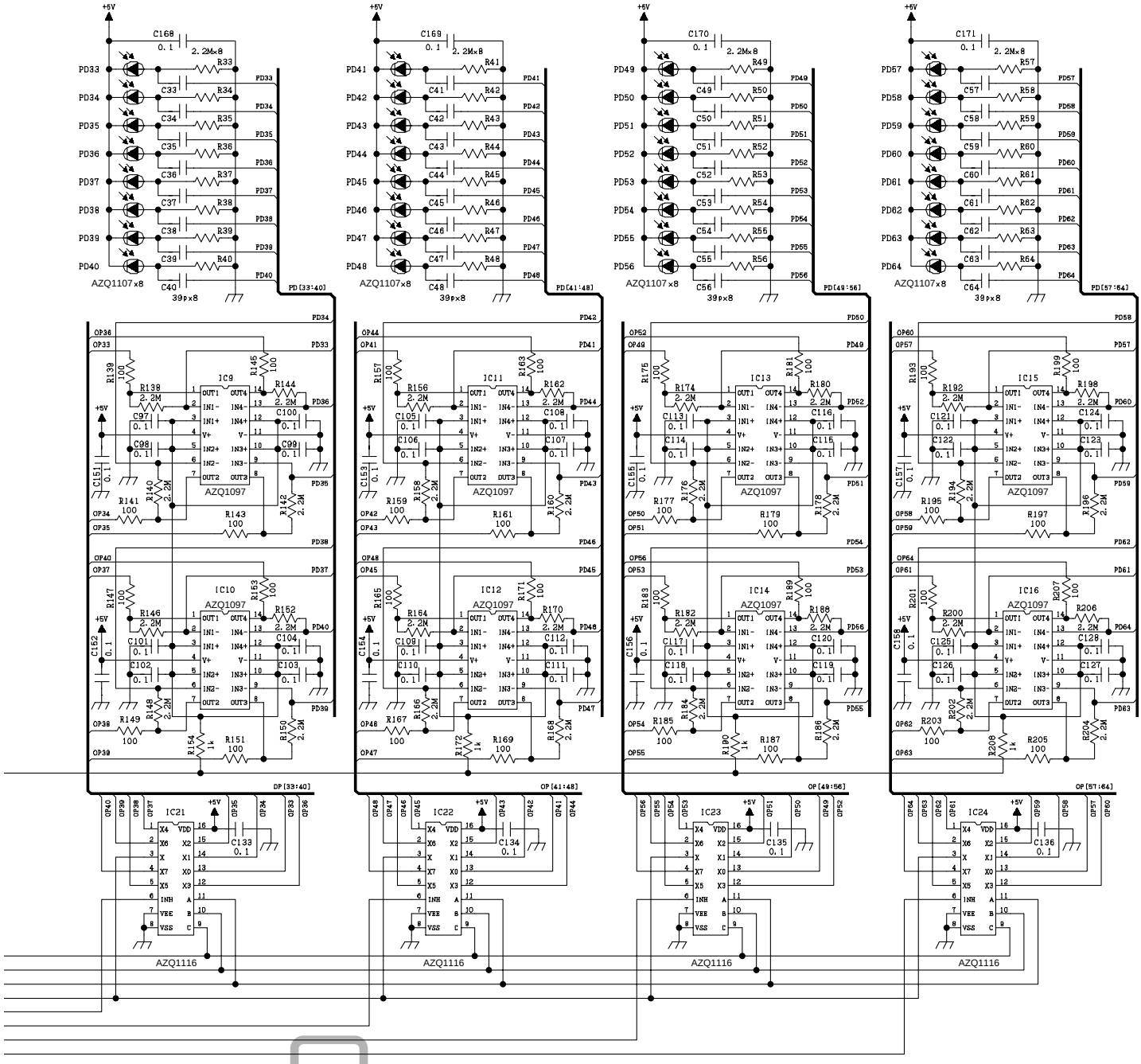


: The power supply is shown with the marked box.

3.9 SENSOR-H ASSY

H SENSOR-H ASSY (AZW1176)



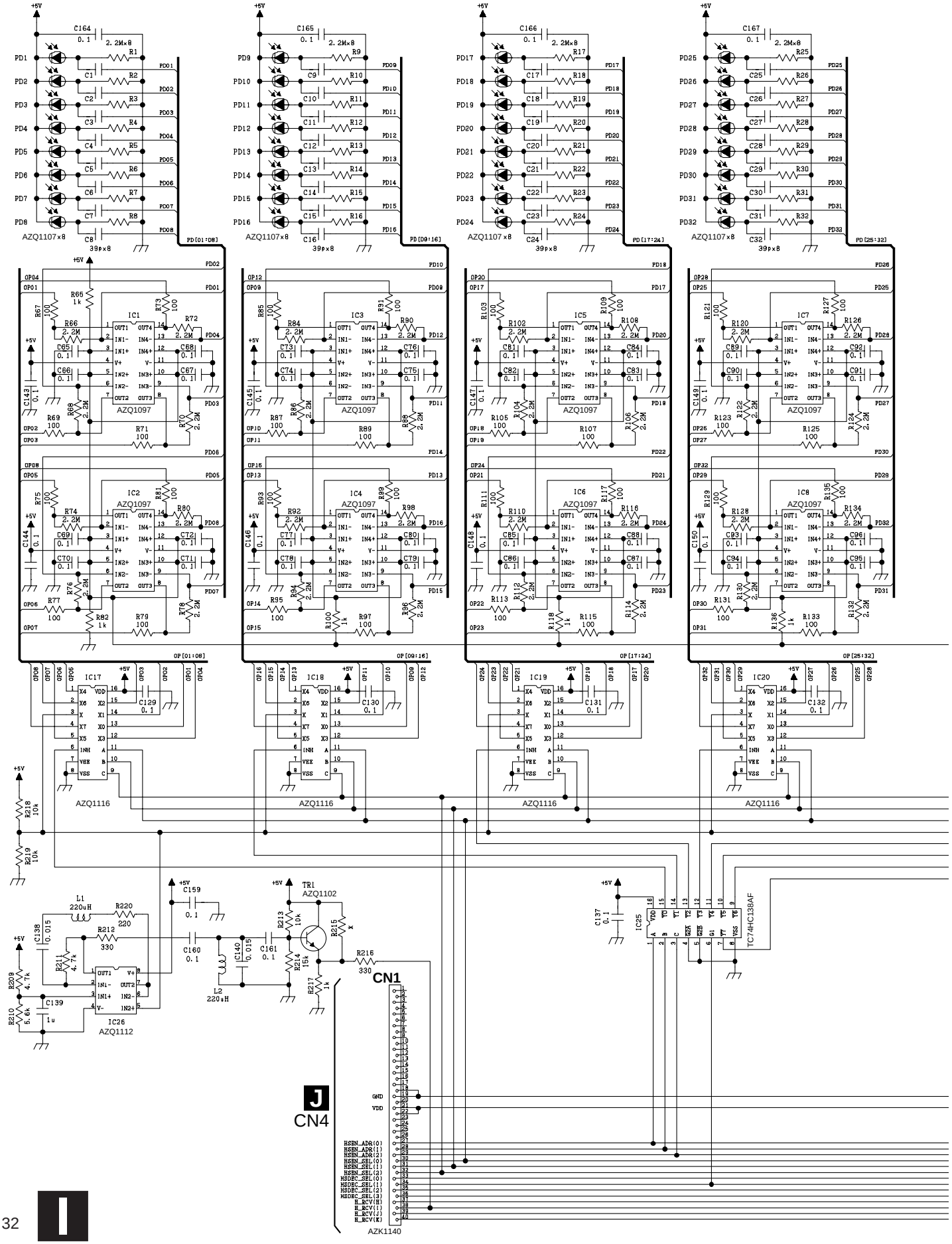


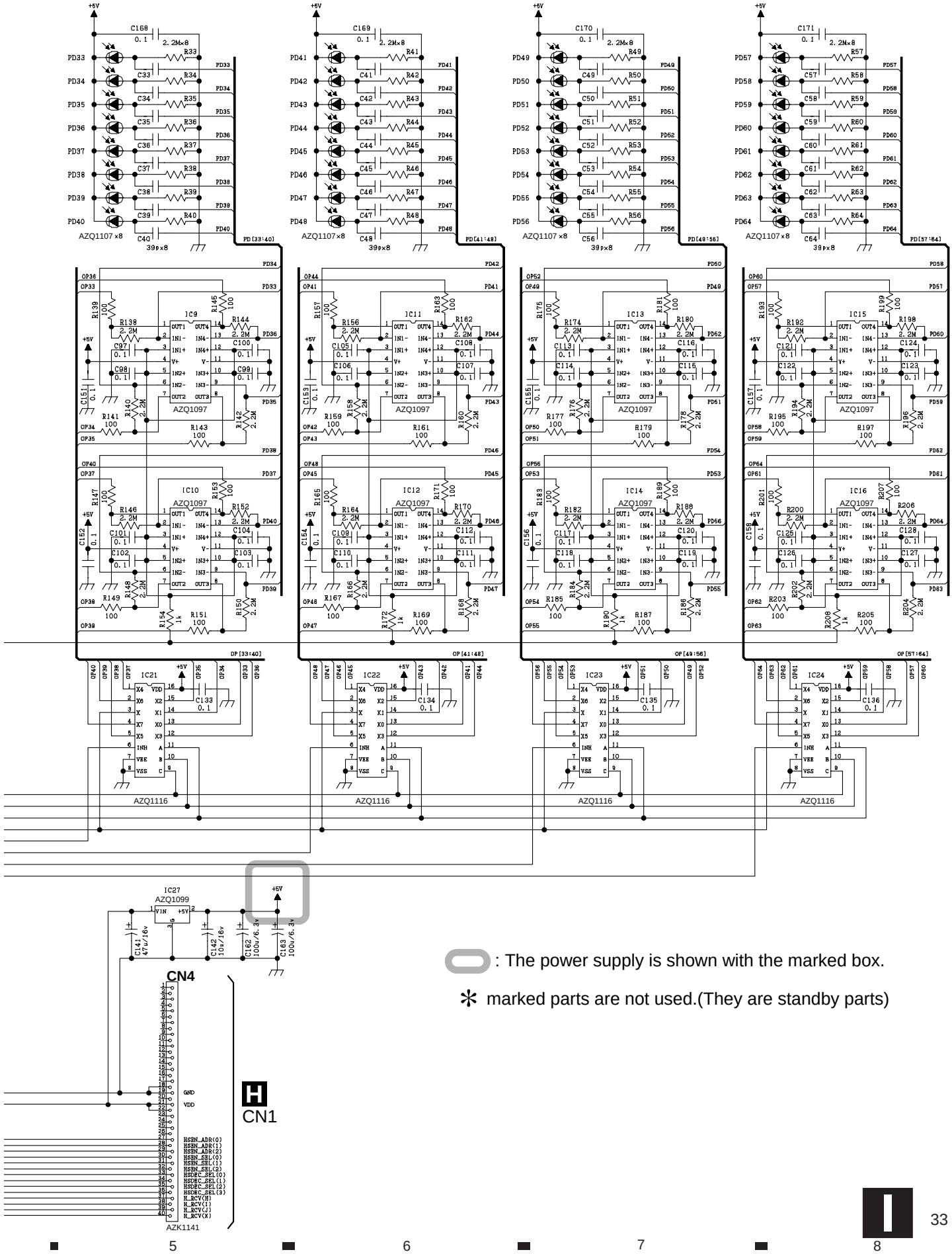
: The power supply is shown with the marked box.

✻ marked parts are not used.(They are standby parts)

3.10 SENSOR-I ASSY

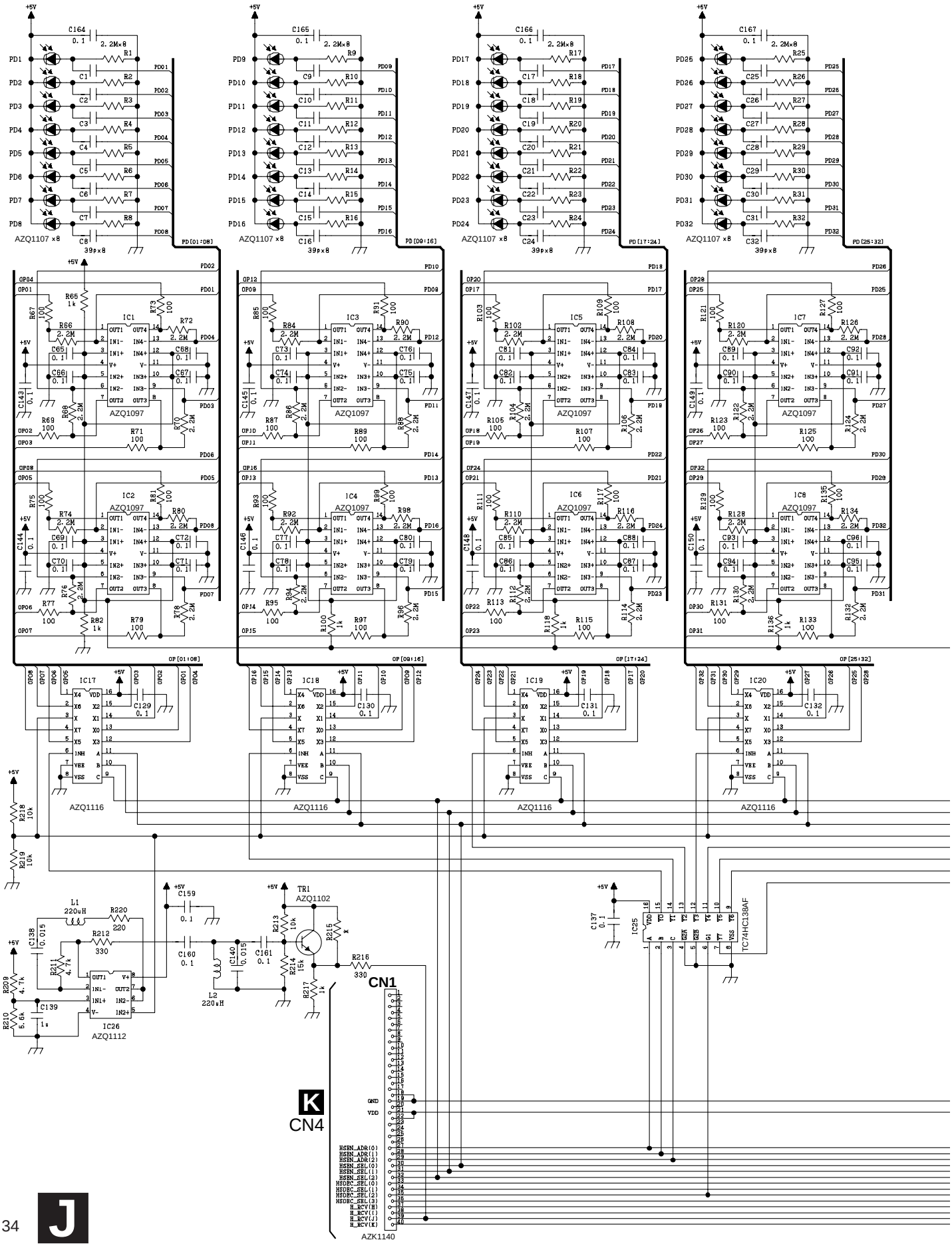
I SENSOR-I ASSY (AZW1177)

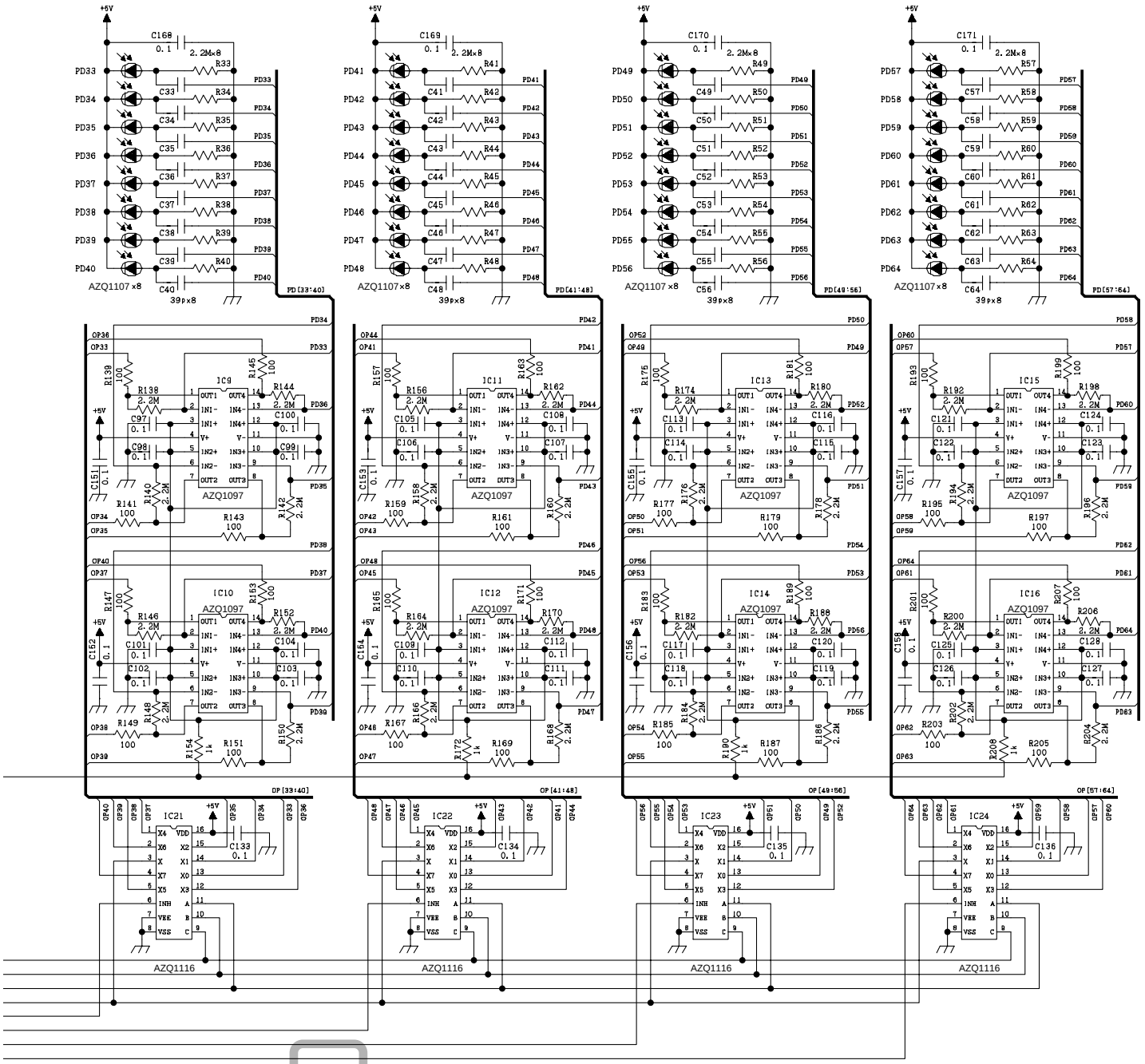



AZQ1107×8
AZQ1097
AZQ1116
AZQ1099
AZK1141
CN4
CN1
: The power supply is shown with the marked box.
✻ marked parts are not used.(They are standby parts)

3.11 SENSOR-J ASSY

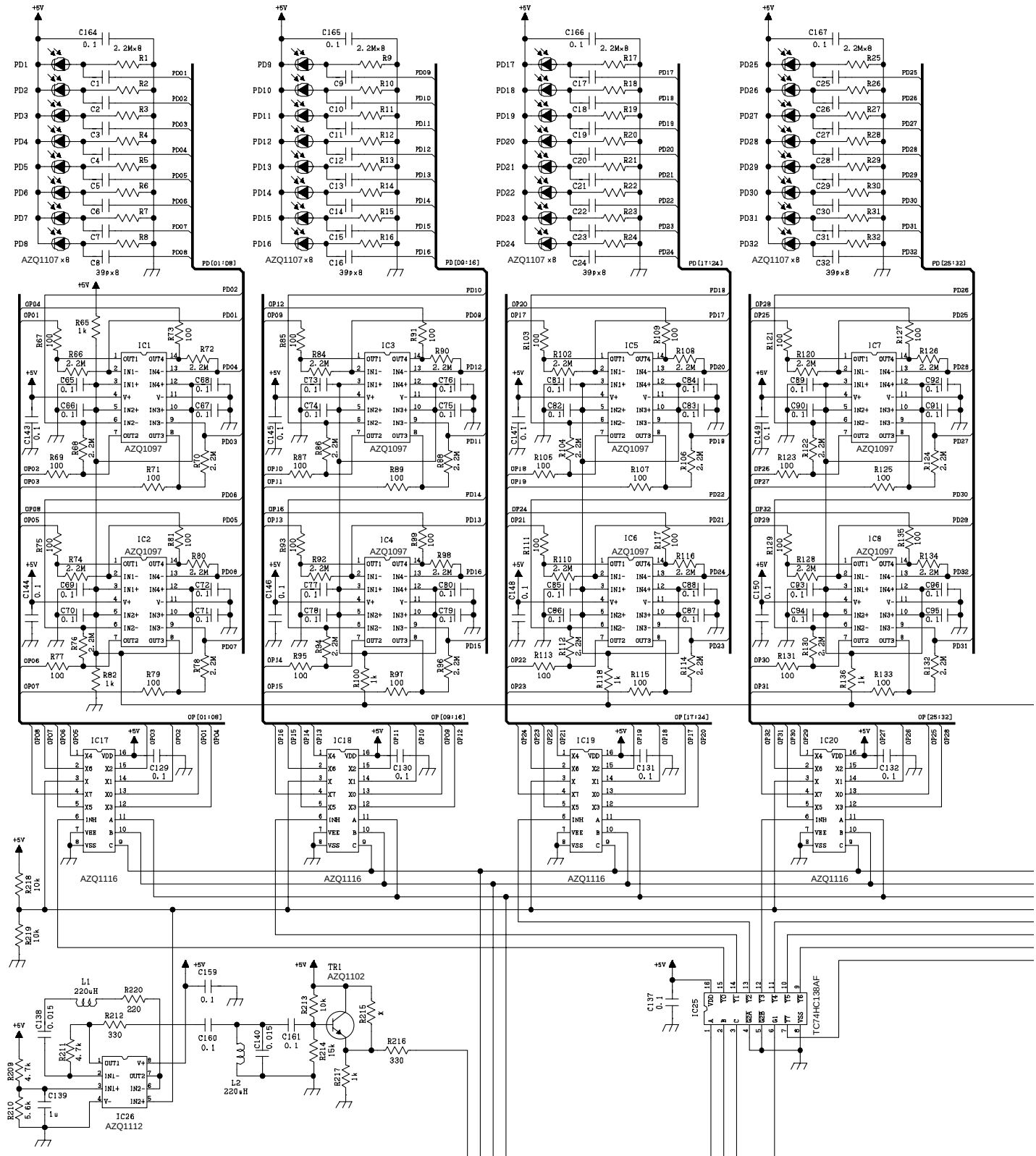
J SENSOR-J ASSY (AZW1178)

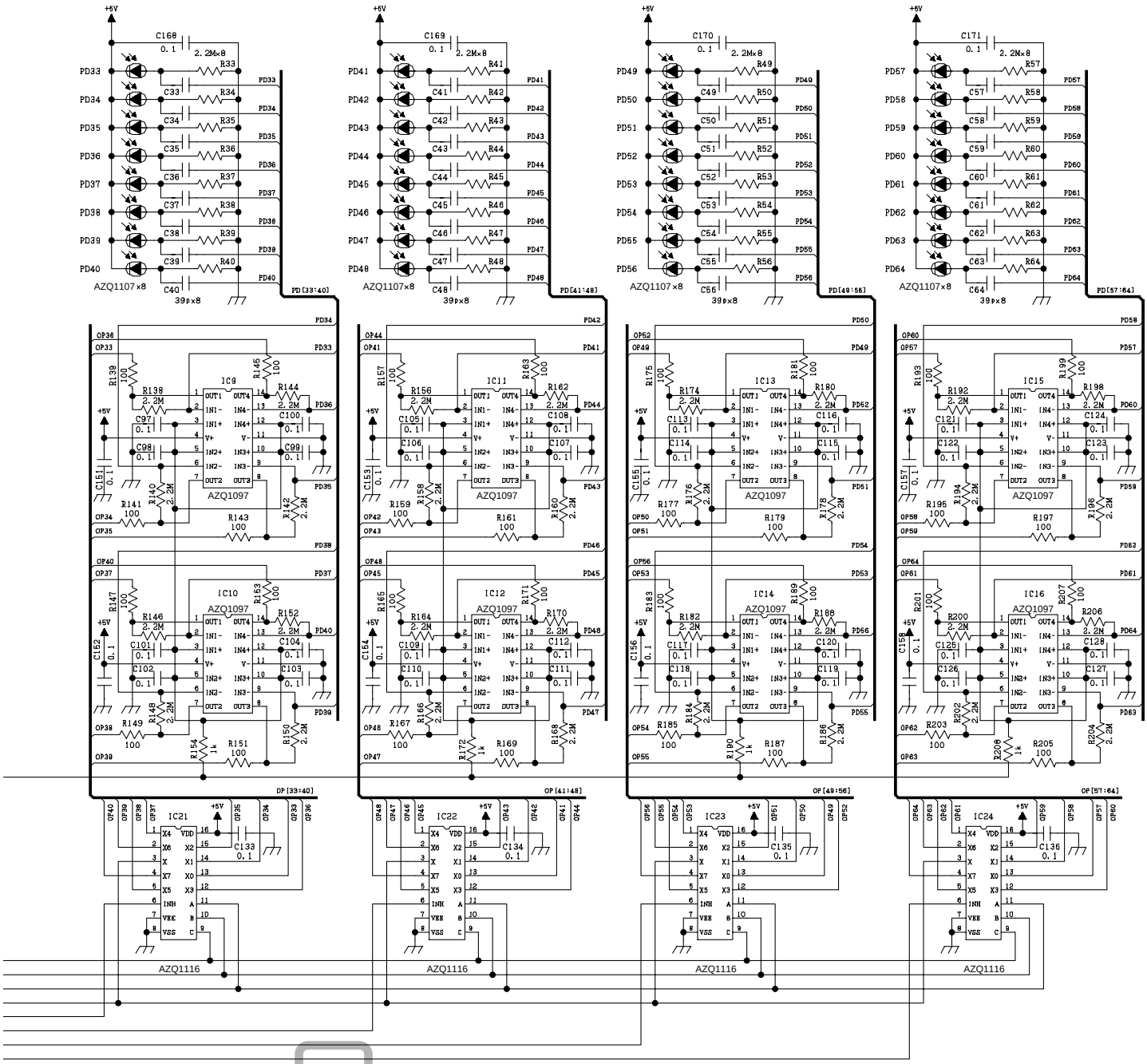



AZQ1107×8
AZQ1097
AZQ1116
AZQ1099
AZK1141
CN4
CN1
: The power supply is shown with the marked box.
✻ marked parts are not used.(They are standby parts)

3.12 SENSOR-K ASSY

K SENSOR-K ASSY (AZW1179)



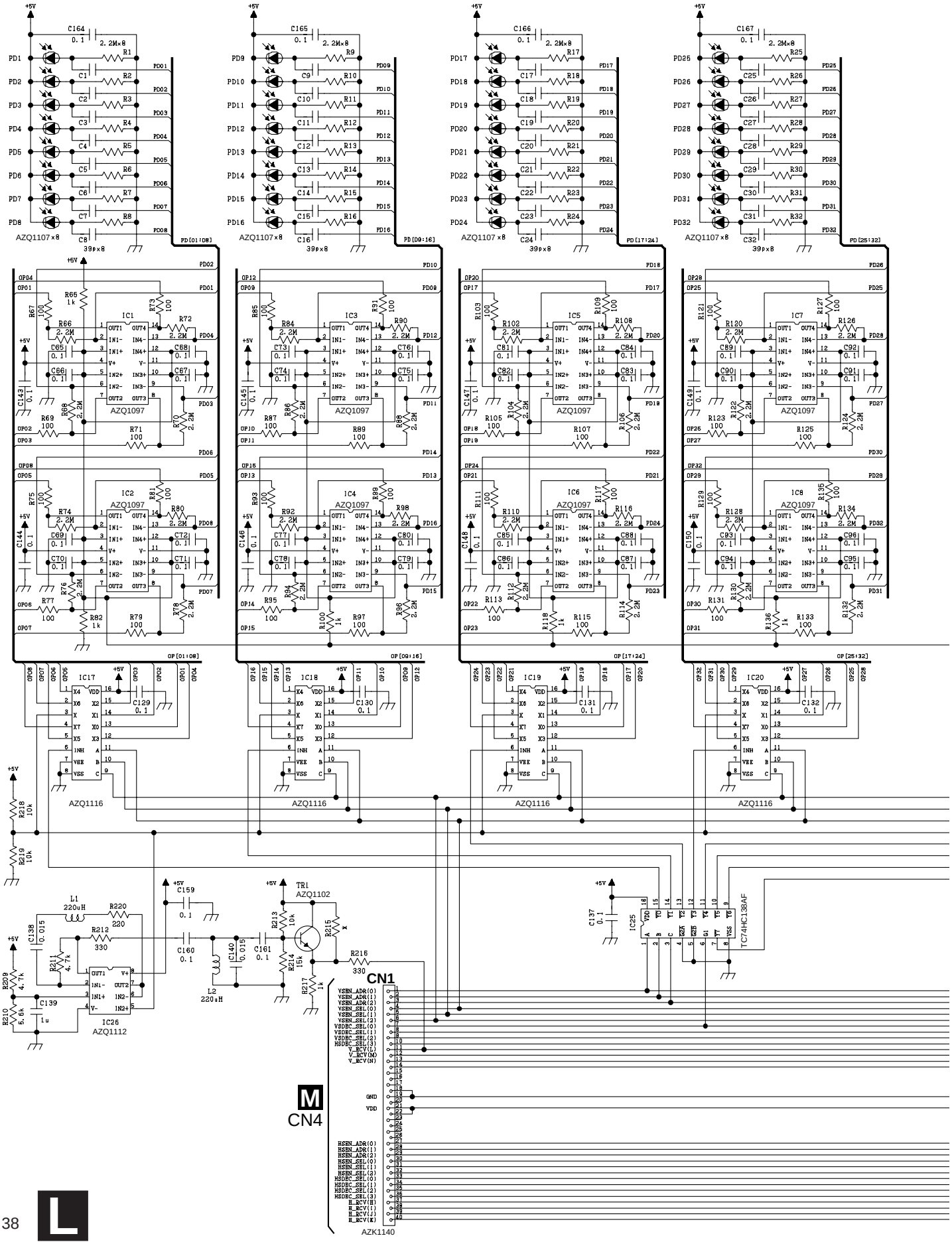


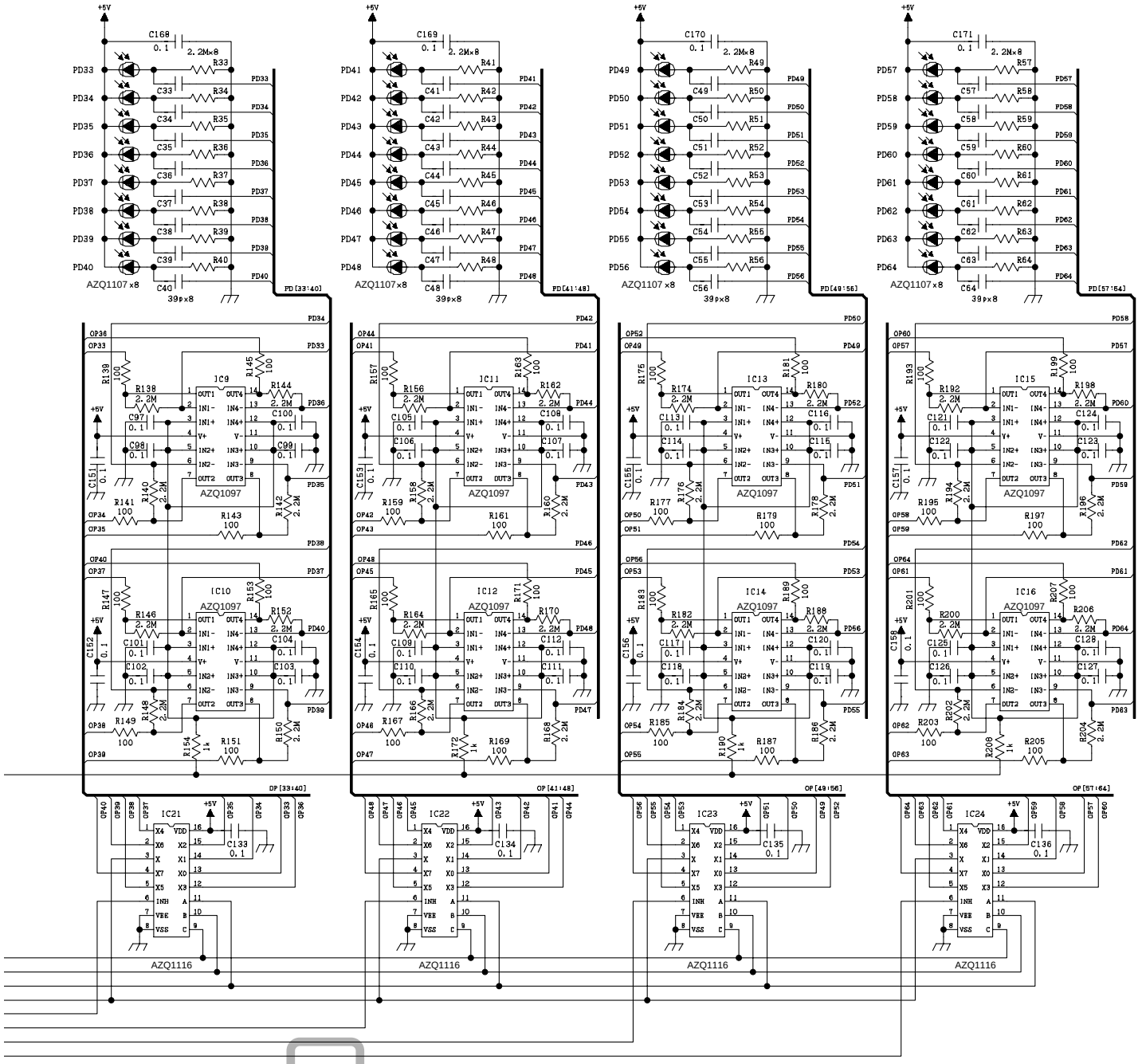
: The power supply is shown with the marked box.

✻ marked parts are not used.(They are standby parts)

3.13 SENSOR-L ASSY

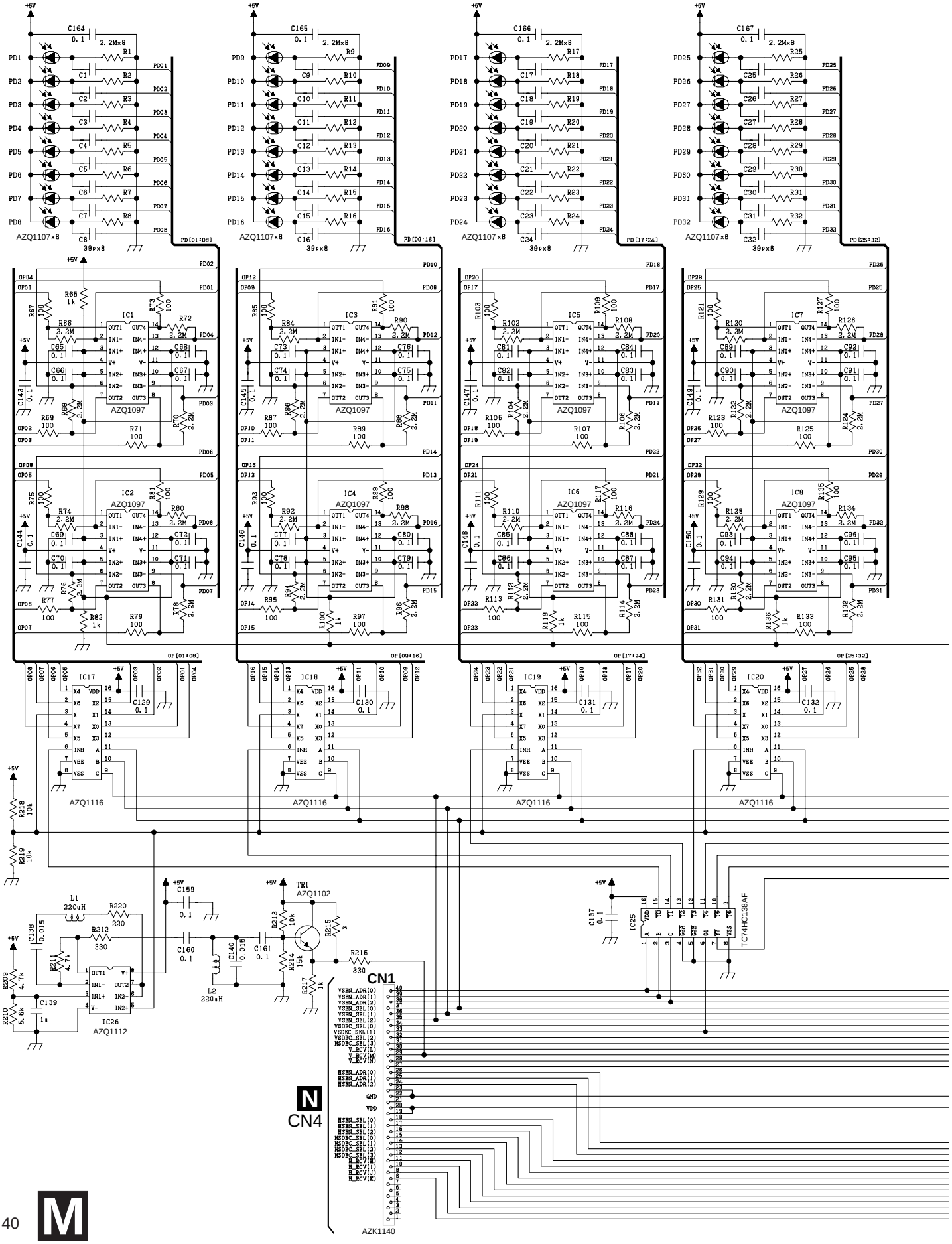
L SENSOR-L ASSY (AZW1180)

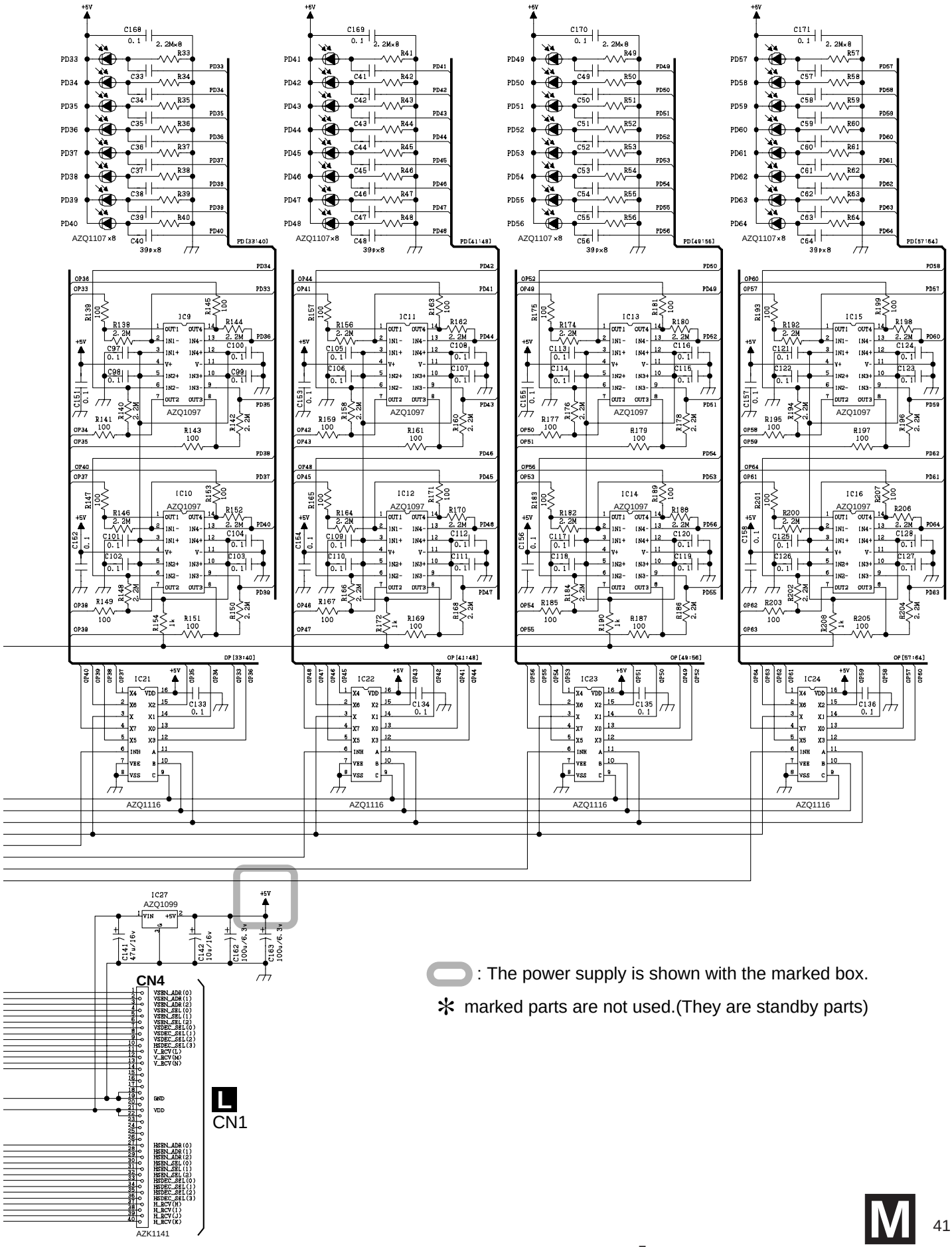



AZQ1107×8
AZQ1097
AZQ1116
AZQ1099
IC27
CN4
53261-1490
CN5
53261-0390
CN6
CN7
CN8
CN9
A
: The power supply is shown with the marked box.
✻ marked parts are not used.(They are standby parts)

3.14 SENSOR-M ASSY

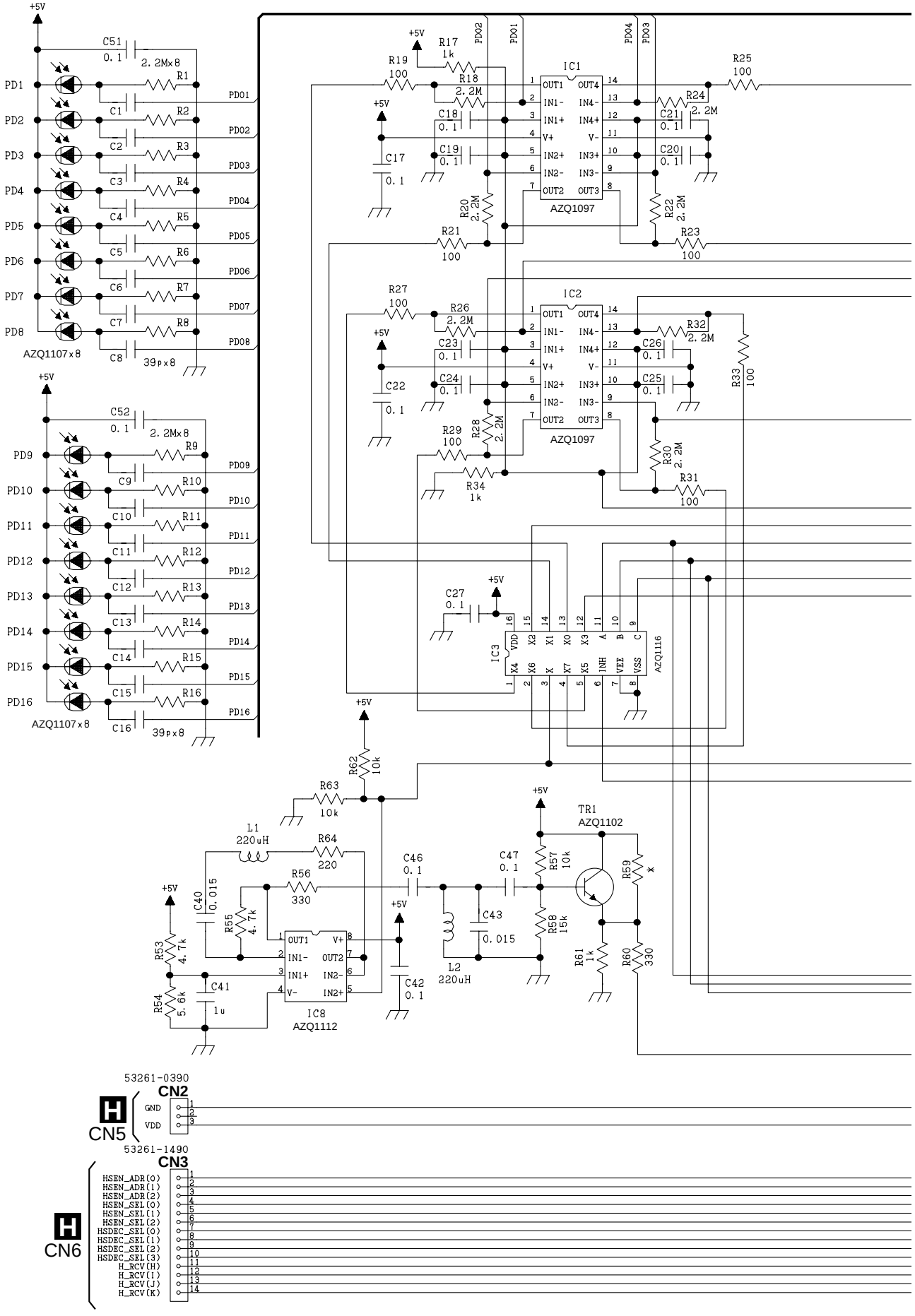
M SENSOR-M ASSY (AZW1181)

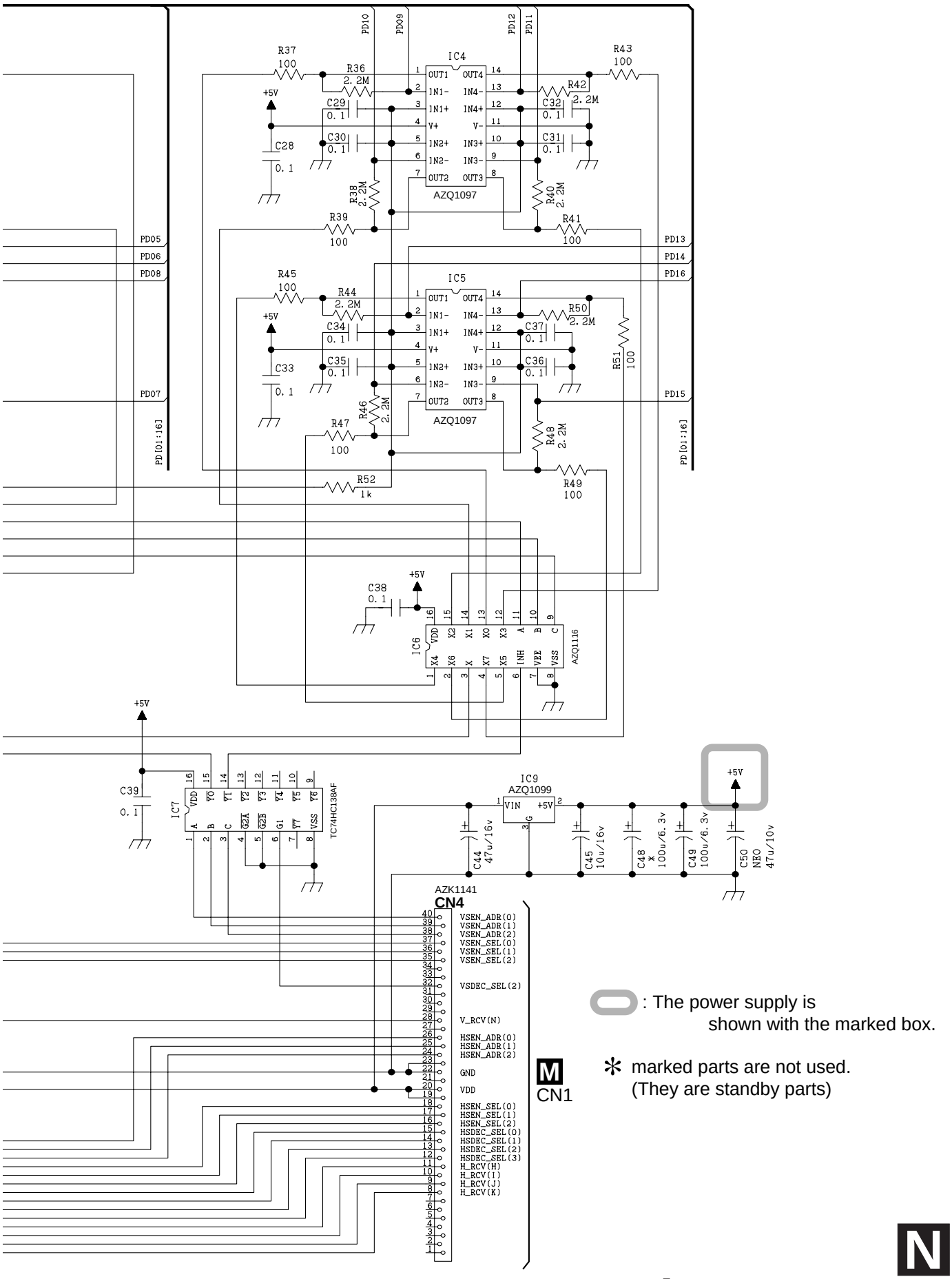



AZQ1107×8
AZQ1097
AZQ1116
AZQ1099
AZK1141
CN4
CN1
IC27
: The power supply is shown with the marked box.
✻ marked parts are not used.(They are standby parts)

3.15 SENSOR-N ASSY

N SENSOR-N ASSY (AZW1182)



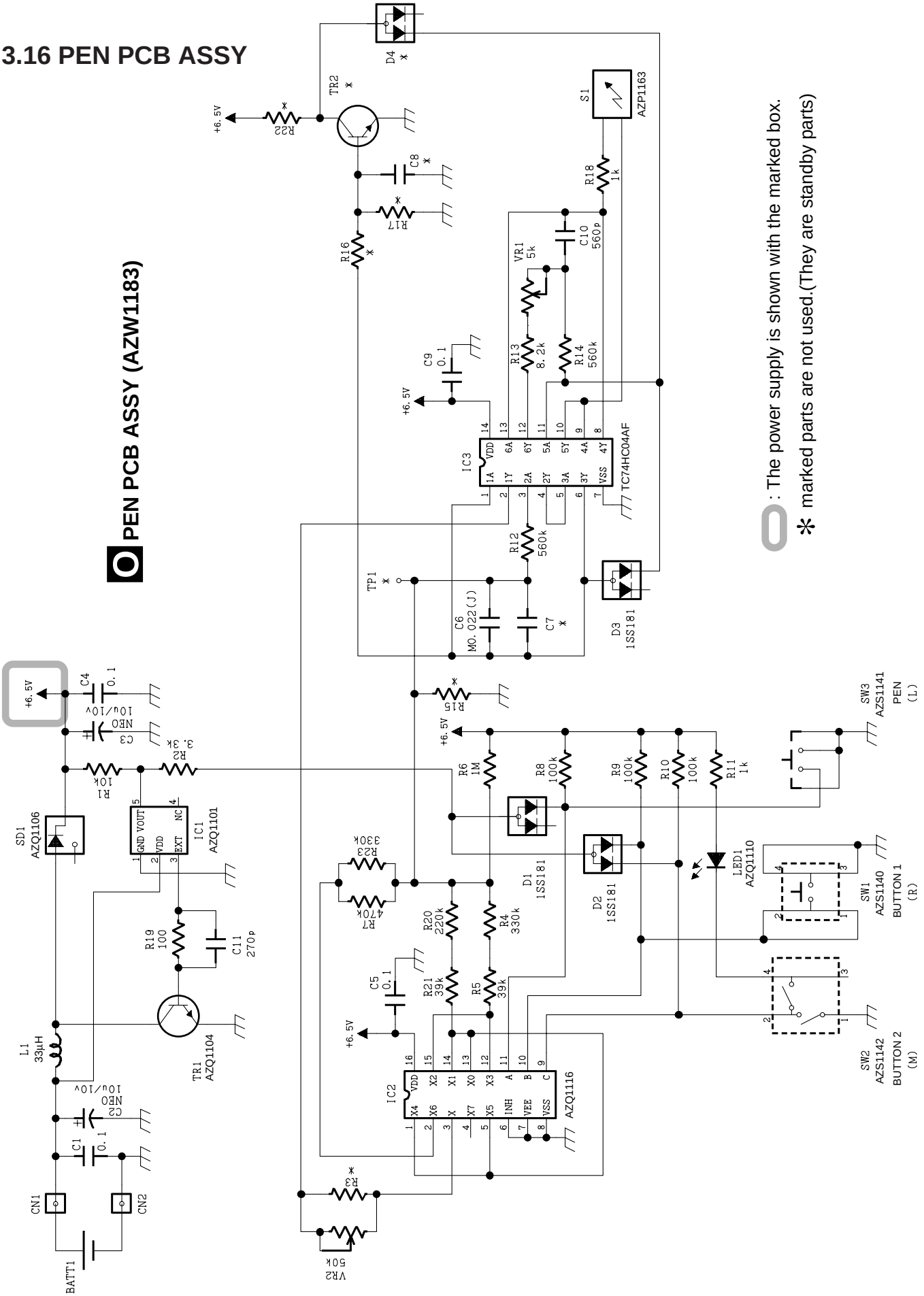


: The power supply is shown with the marked box.

✻ marked parts are not used. (They are standby parts)

3.16 PEN PCB ASSY

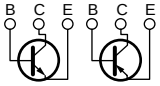
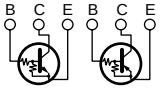
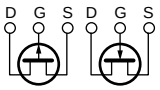
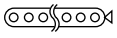
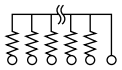
PEN PCB ASSY (AZW1183)



4. PCB CONNECTION DIAGRAM

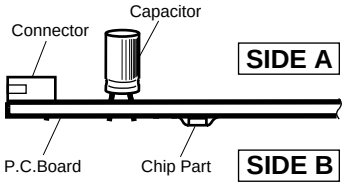
NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

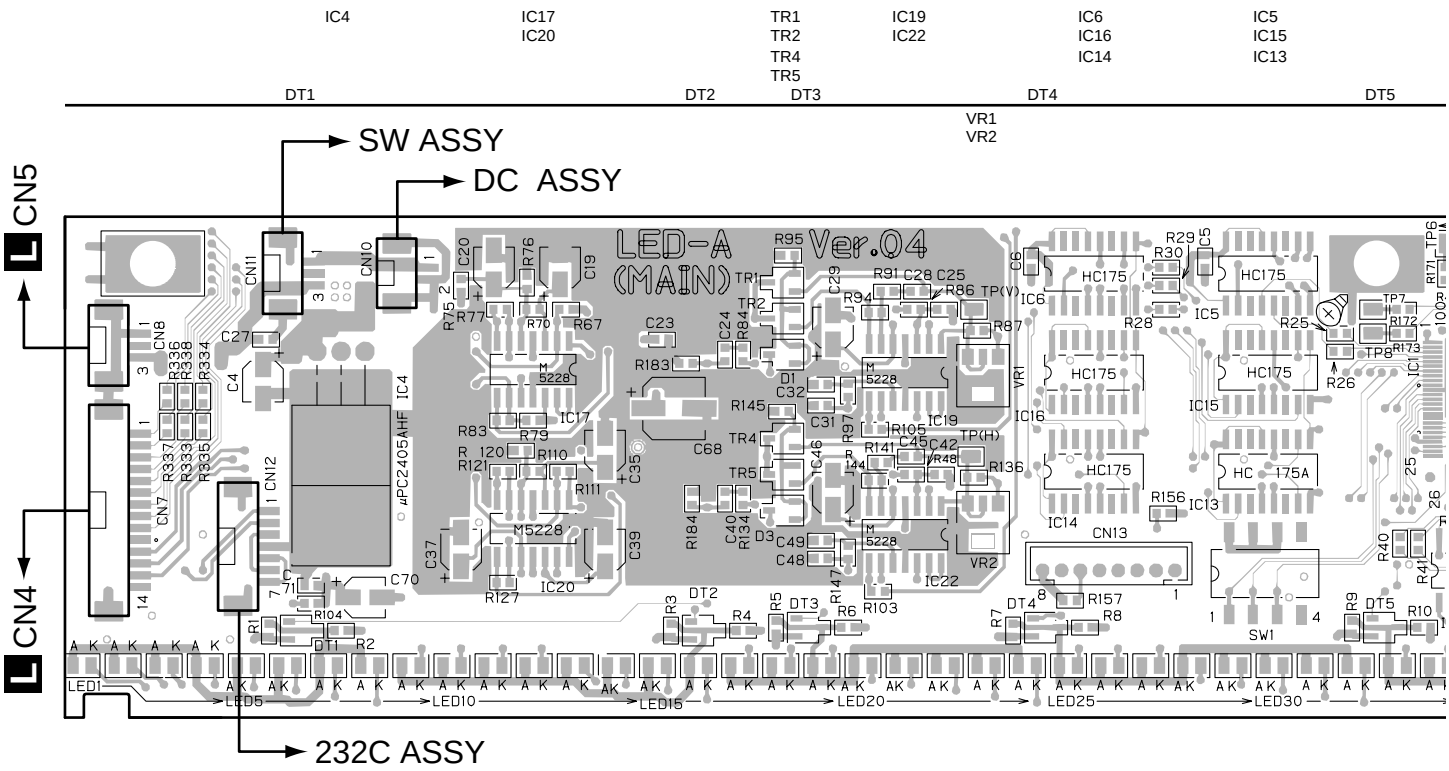
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.

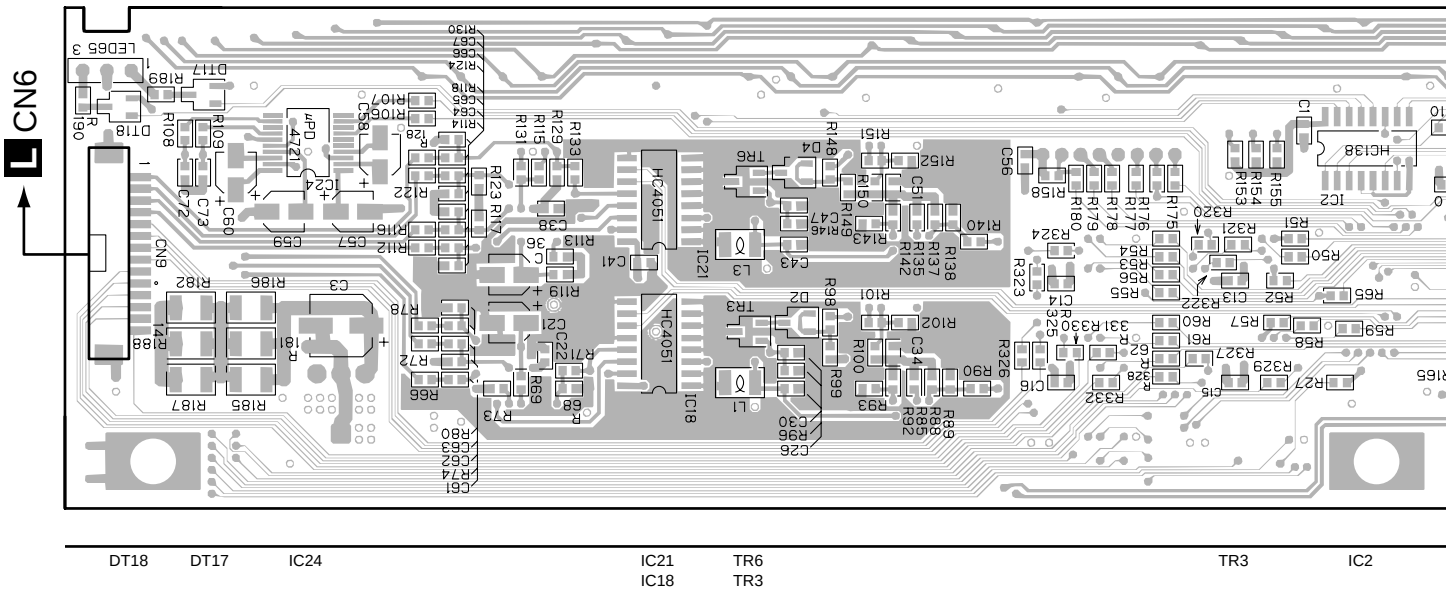
4. Viewpoint of PCB diagrams



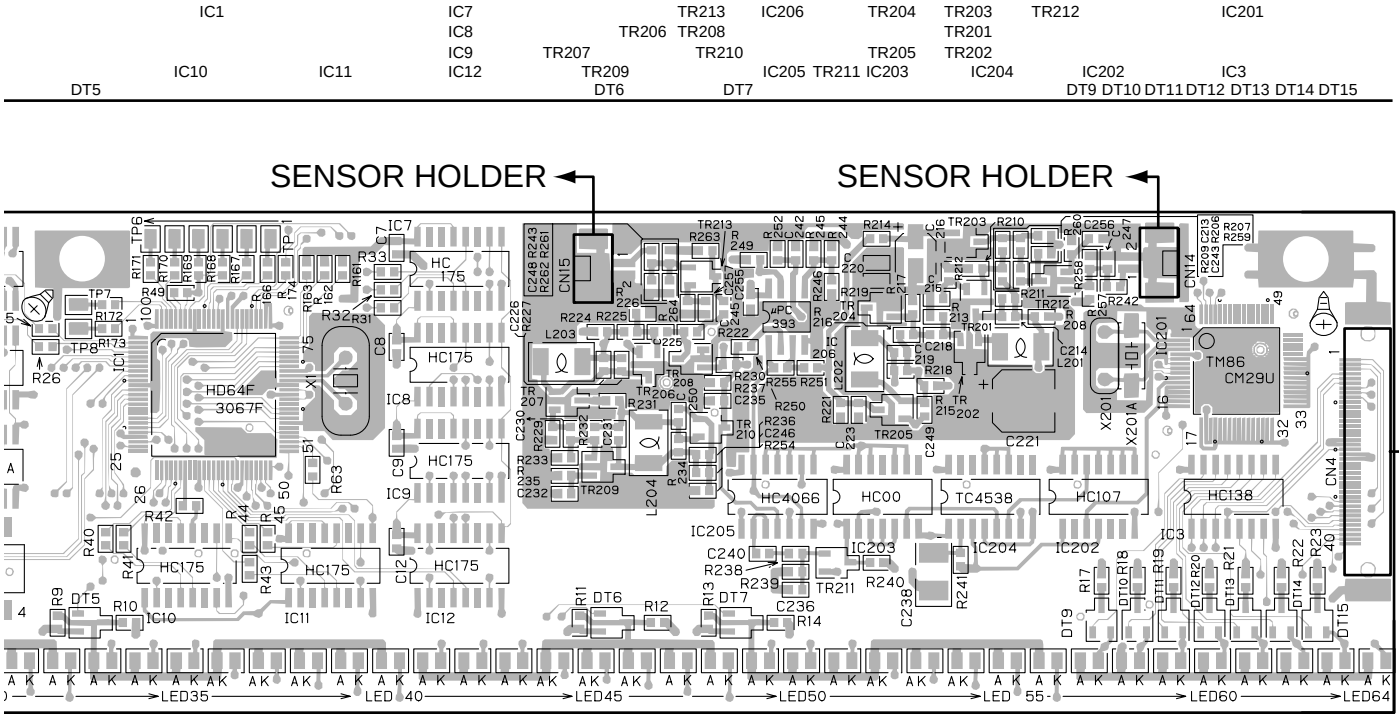
4.1 LED-A ASSY

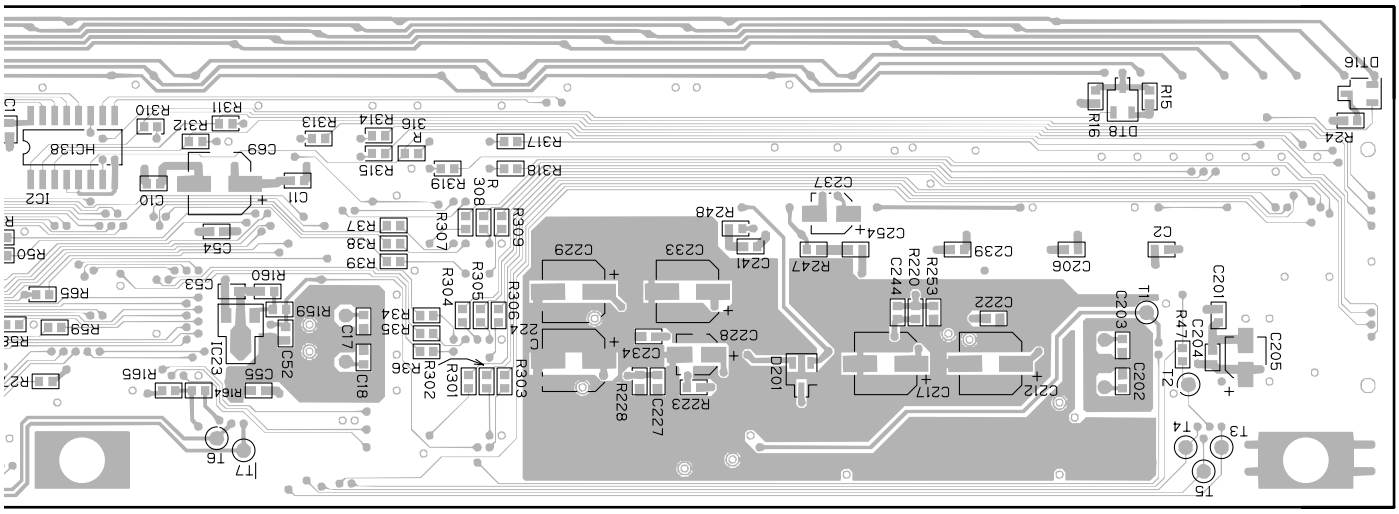


A LED-A ASSY

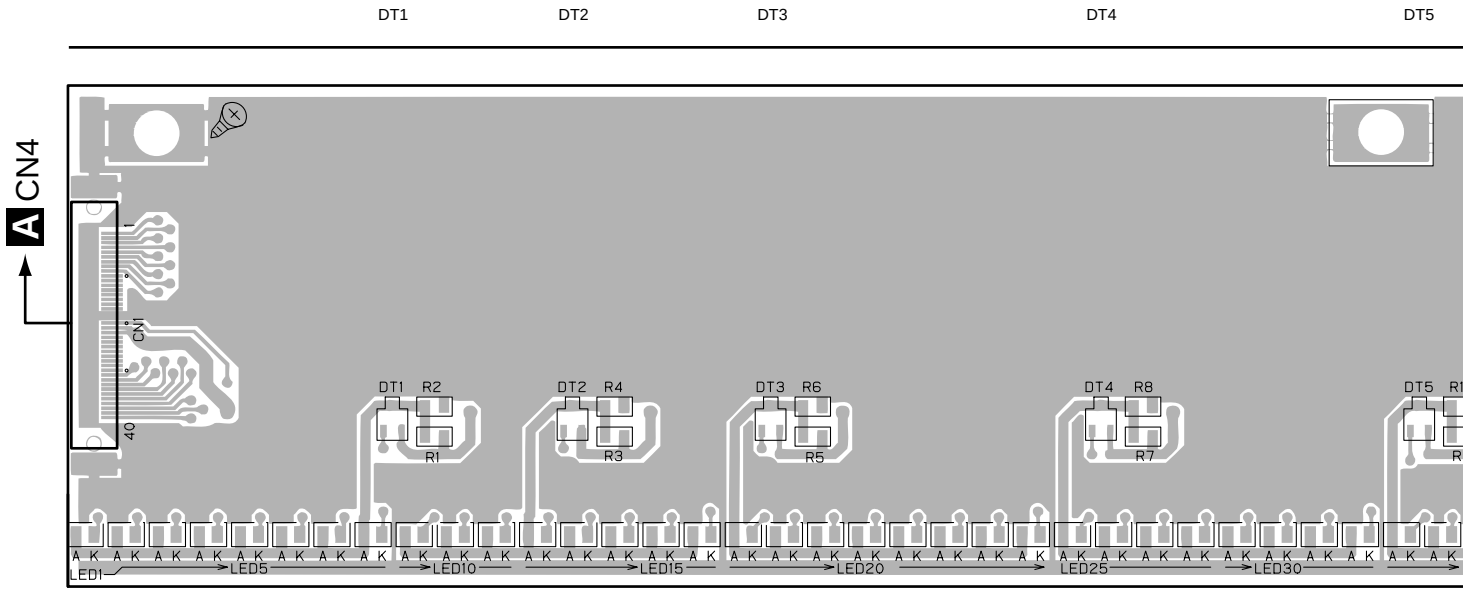


• This PCB is four layered board.

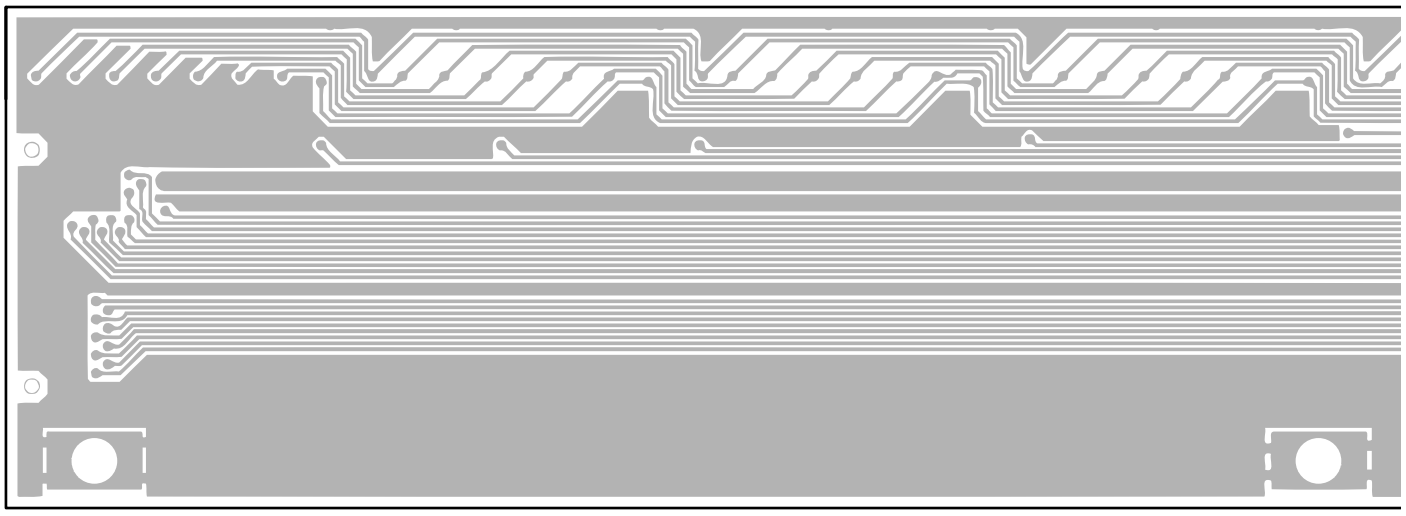




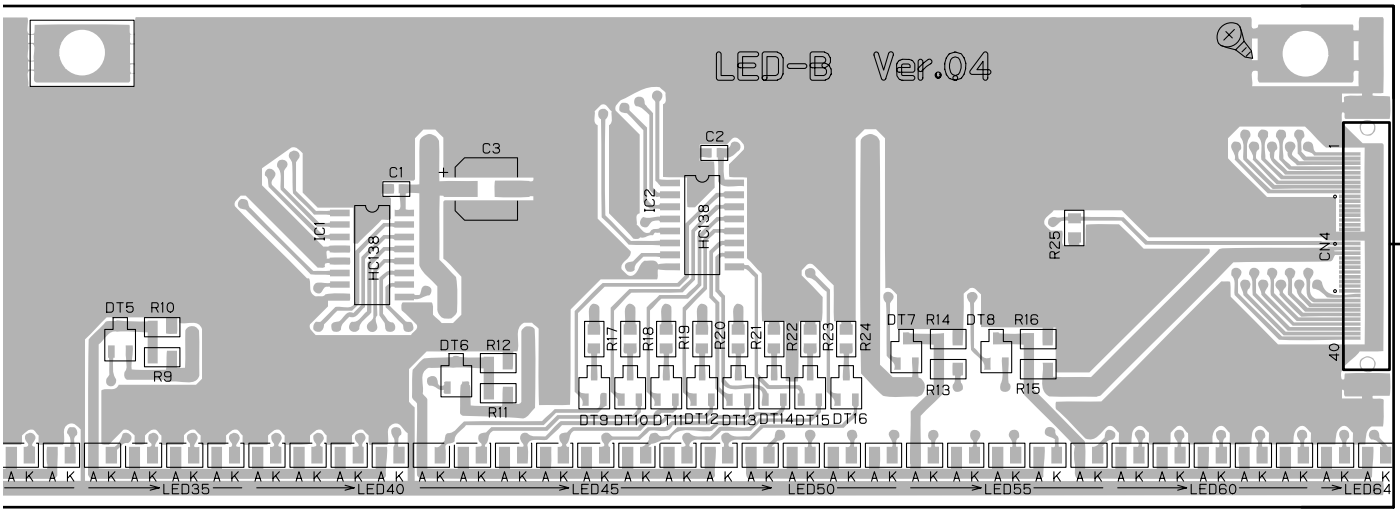
4.2 LED-B ASSY



B LED-B ASSY

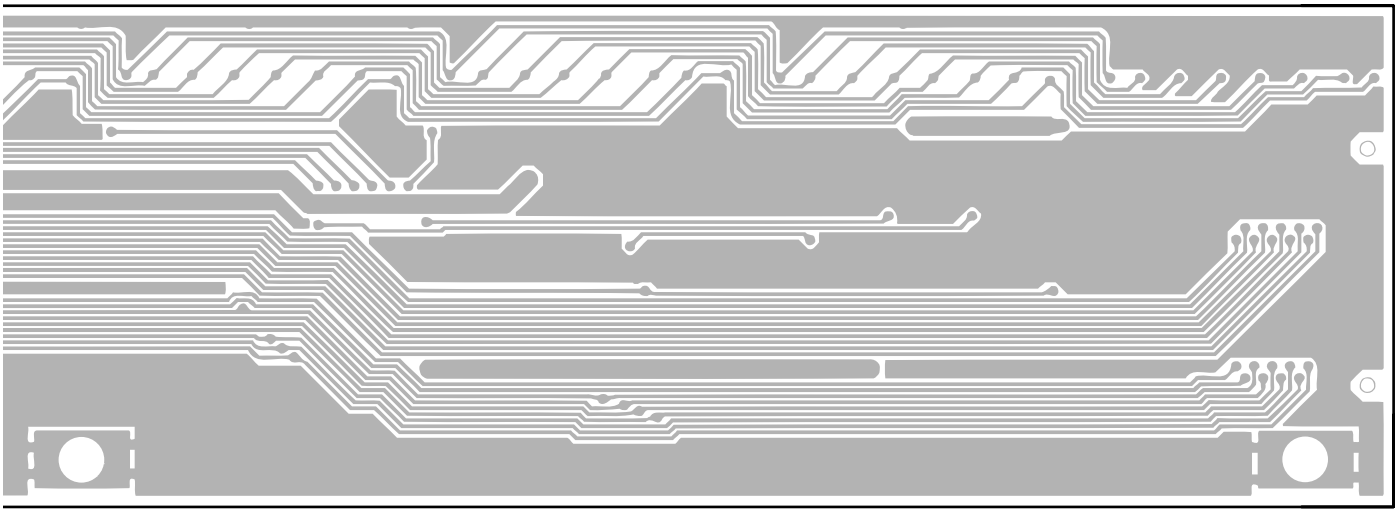


DT5 IC1 DT6 IC2 DT7 DT8
DT9 DT10 DT11 DT12 DT13 DT14 DT15 DT16

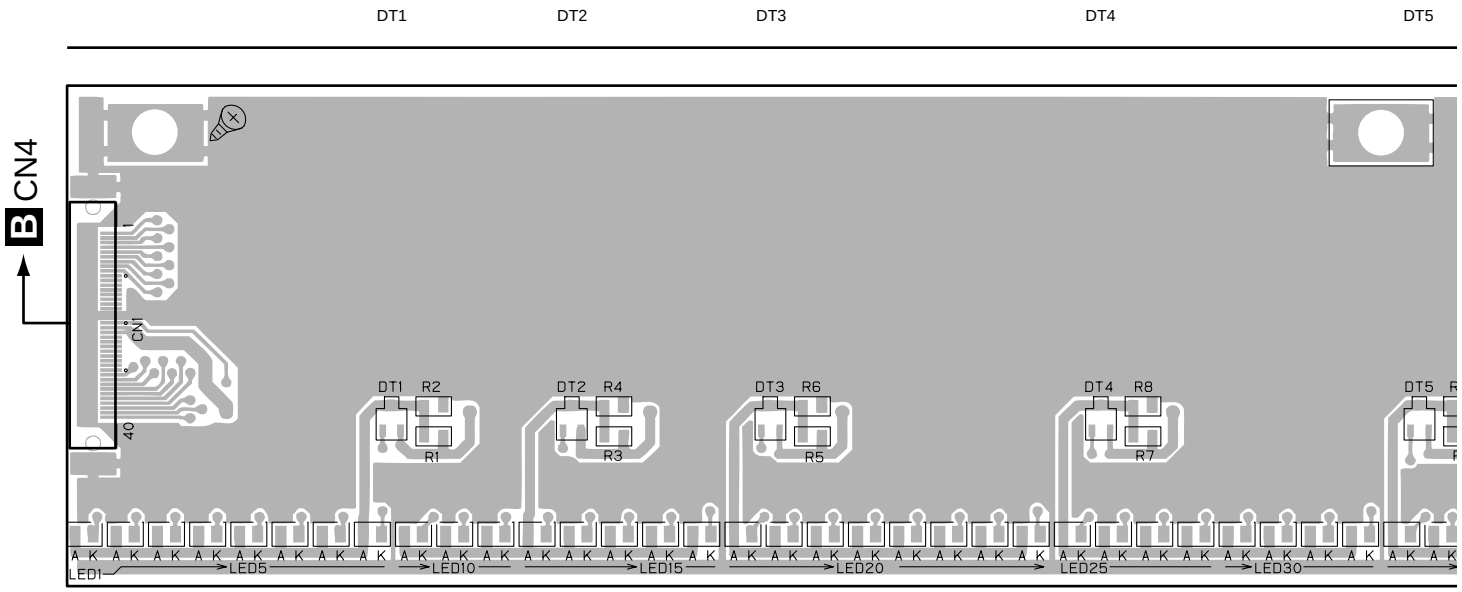


SIDE A

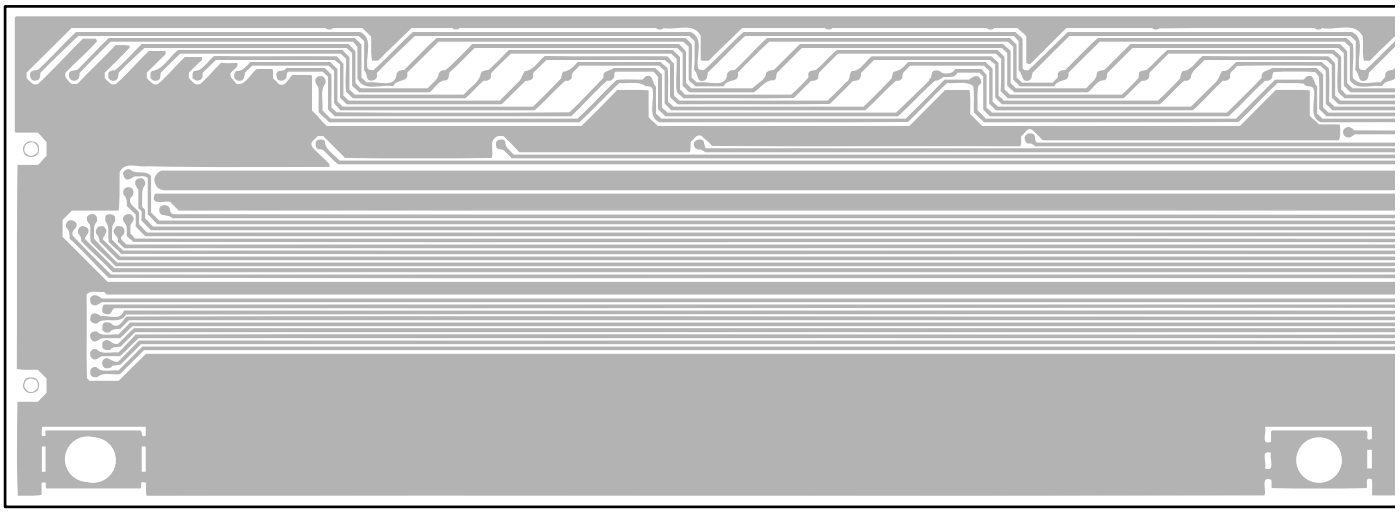
SIDE B



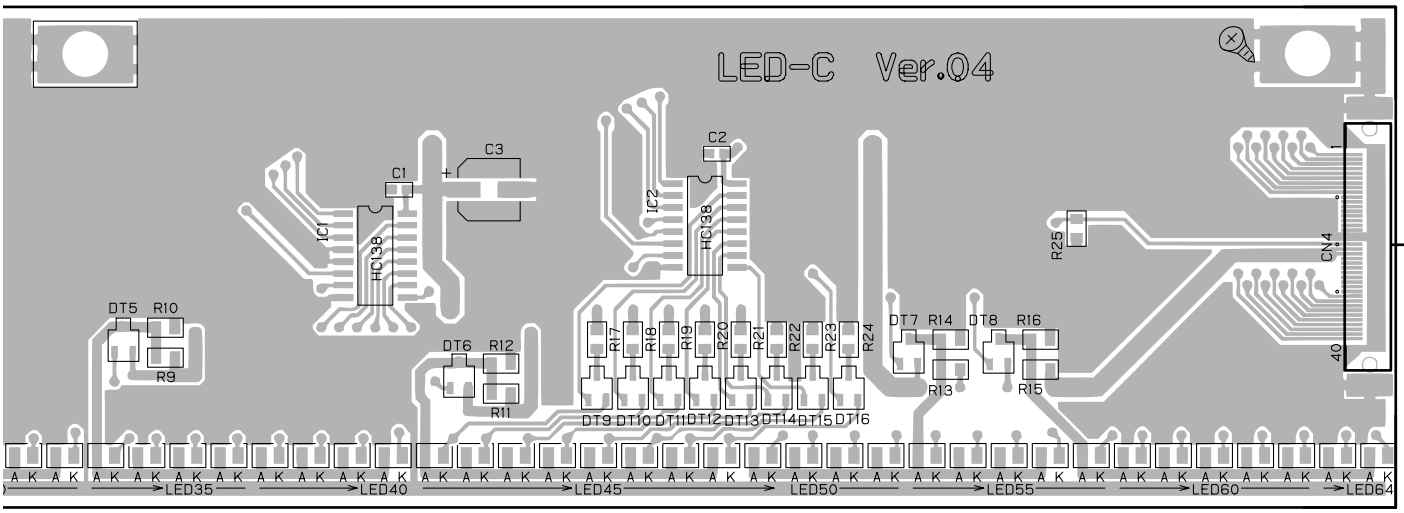
4.3 LED-C ASSY



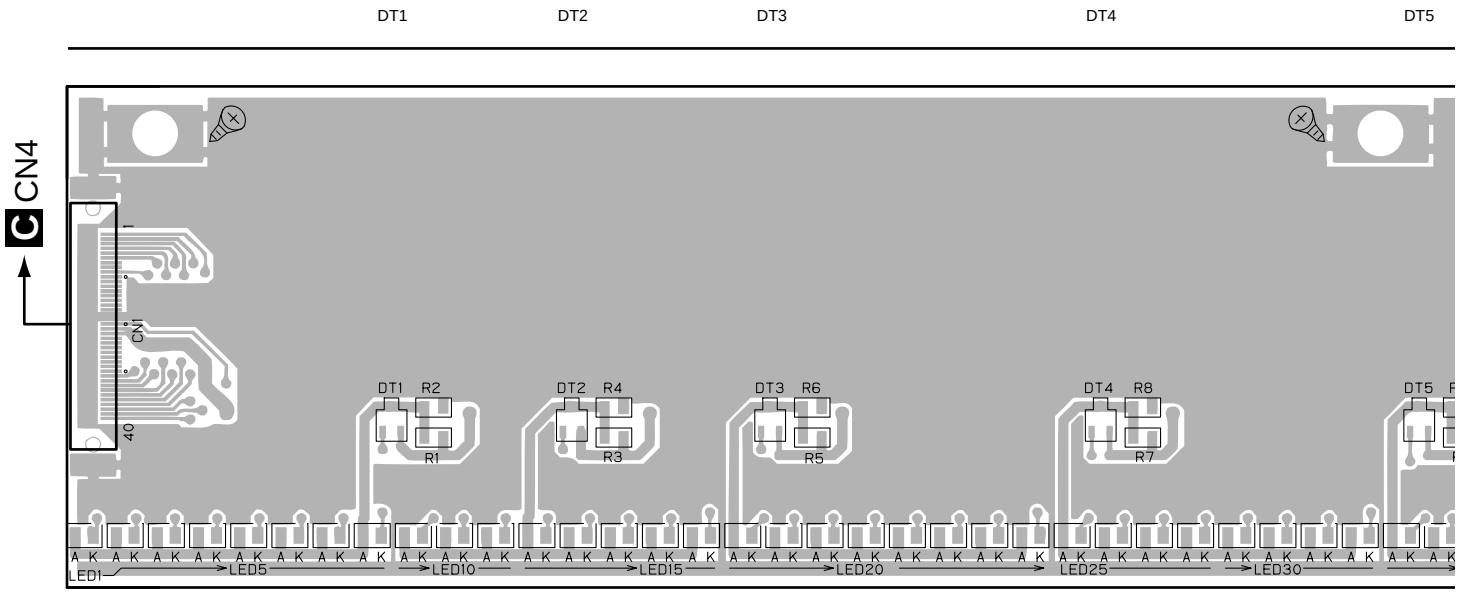
C LED-C ASSY



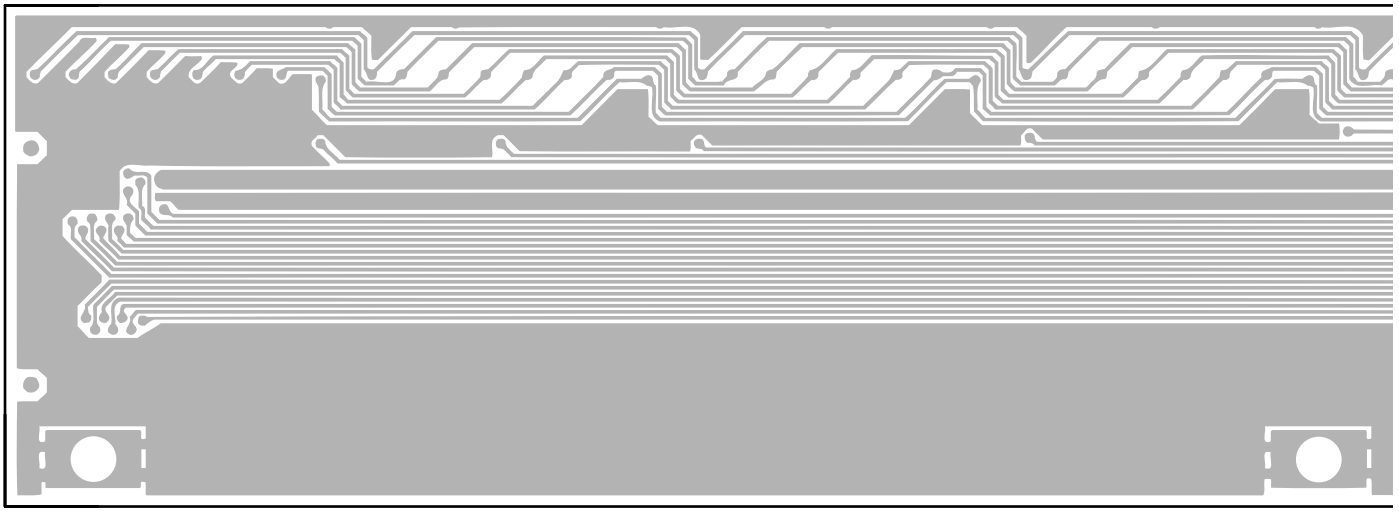
DT5 IC1 DT6 IC2 DT7 DT8
DT9 DT10 DT11 DT12 DT13 DT14 DT15 DT16

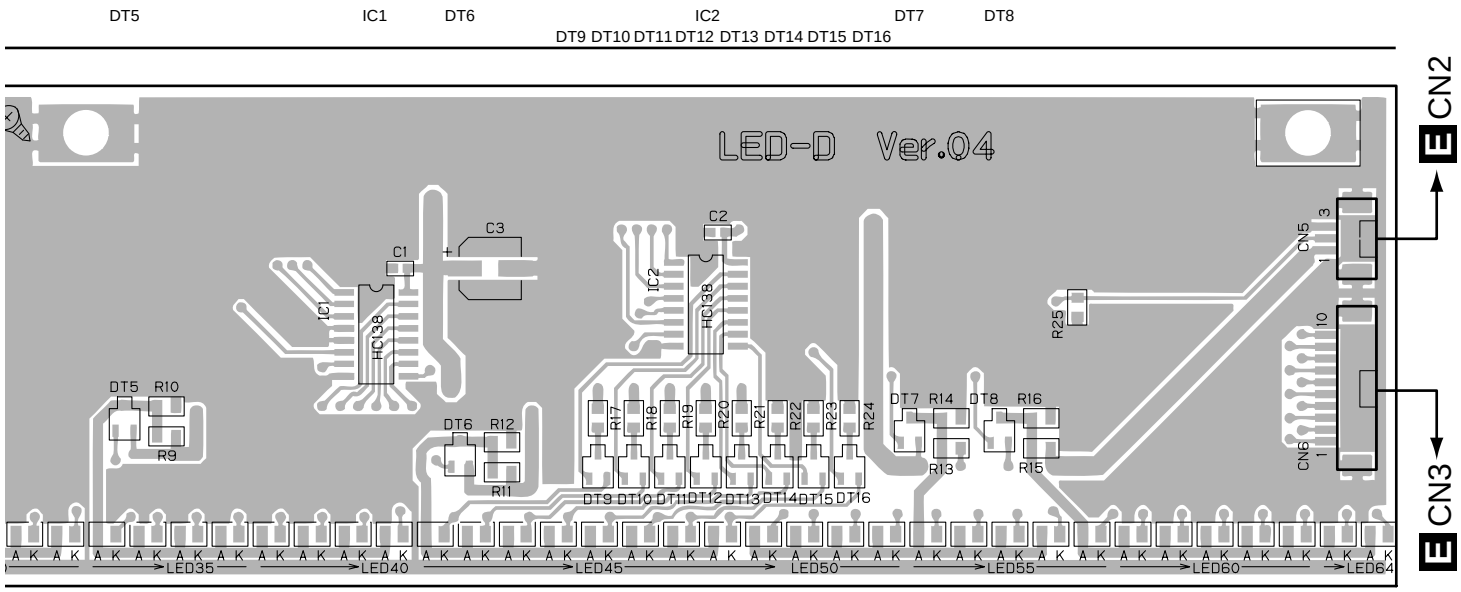

LED-C Ver.04
C1
C2
C3
IC1
IC2
HC138
HC138
DT5 R10
R9
DT6 R12
R11
R17 R18 R19 R20 R21 R22 R23 R24
DT9 DT10 DT11 DT12 DT13 DT14 DT15 DT16
DT7 R14
R13
DT8 R16
R15
R25
CN4
40
D CN1
A K A K A K

4.4 LED-D ASSY



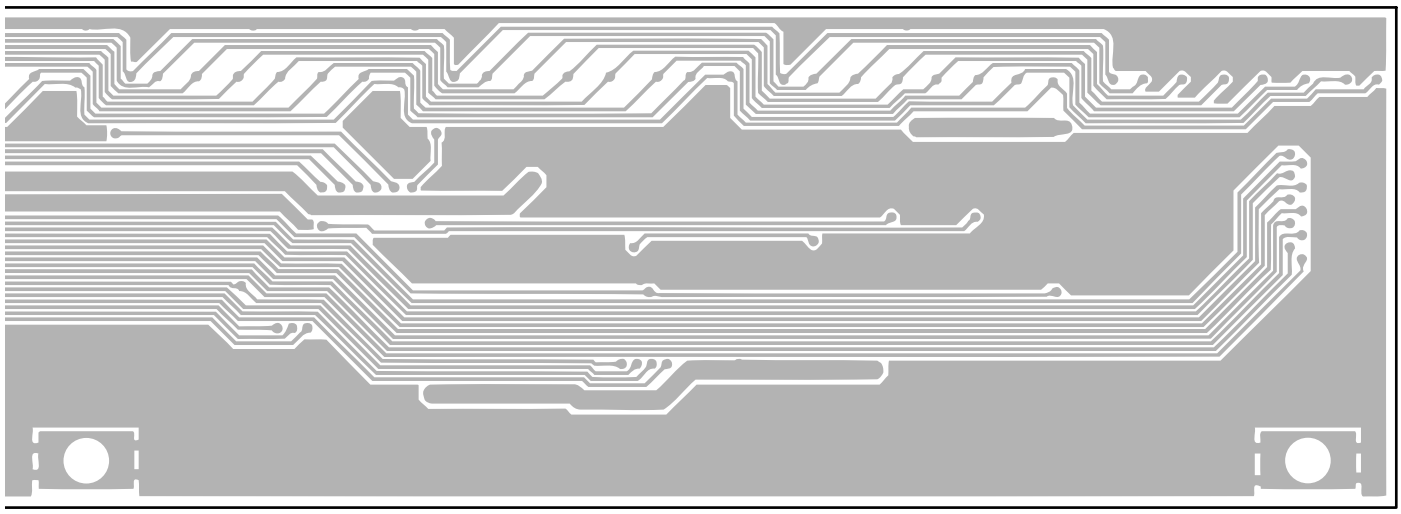
D LED-D ASSY



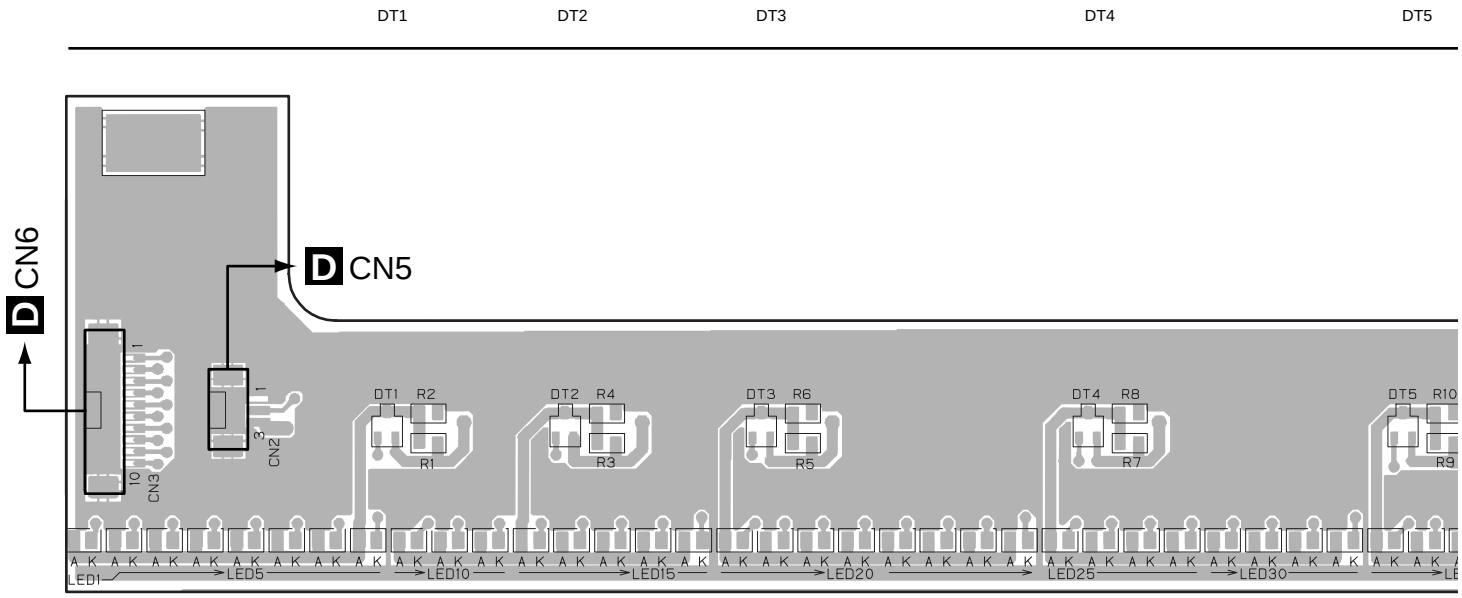

DT5
IC1
DT6
IC2
DT7
DT8
DT9 DT10 DT11 DT12 DT13 DT14 DT15 DT16
LED-D Ver.04
CN2
CN3
CN5
CN6
C1
C2
C3
IC1
IC2
HC138
R25
DT5 R10
R9
DT6 R12
R11
R17 R18 R19 R20 R21 R22 R23 R24
DT7 R14
R13
DT8 R16
R15
LED35
LED40
LED45
LED50
LED55
LED60
LED64

SIDE A

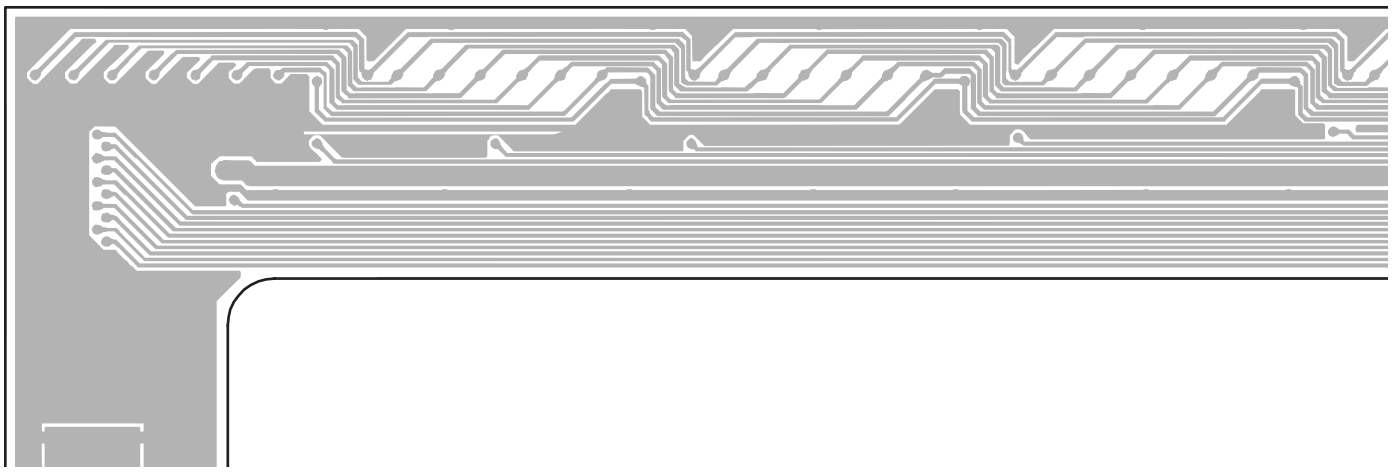
SIDE B



4.5 LED-E ASSY

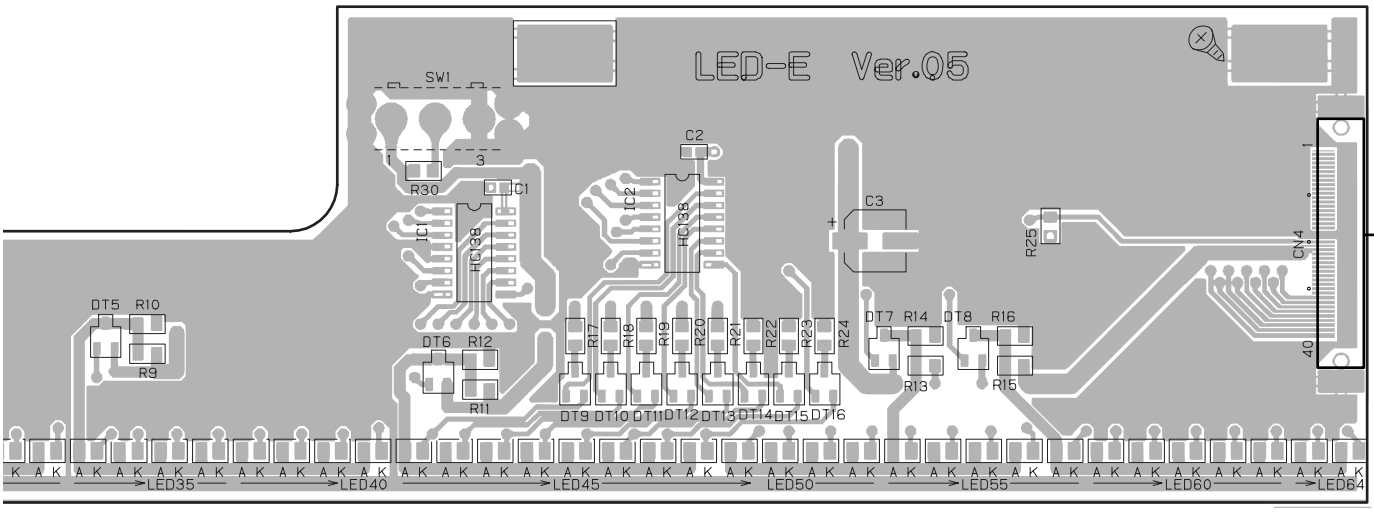


E LED-E ASSY



DT5 DT6 IC1 IC2 DT7 DT8

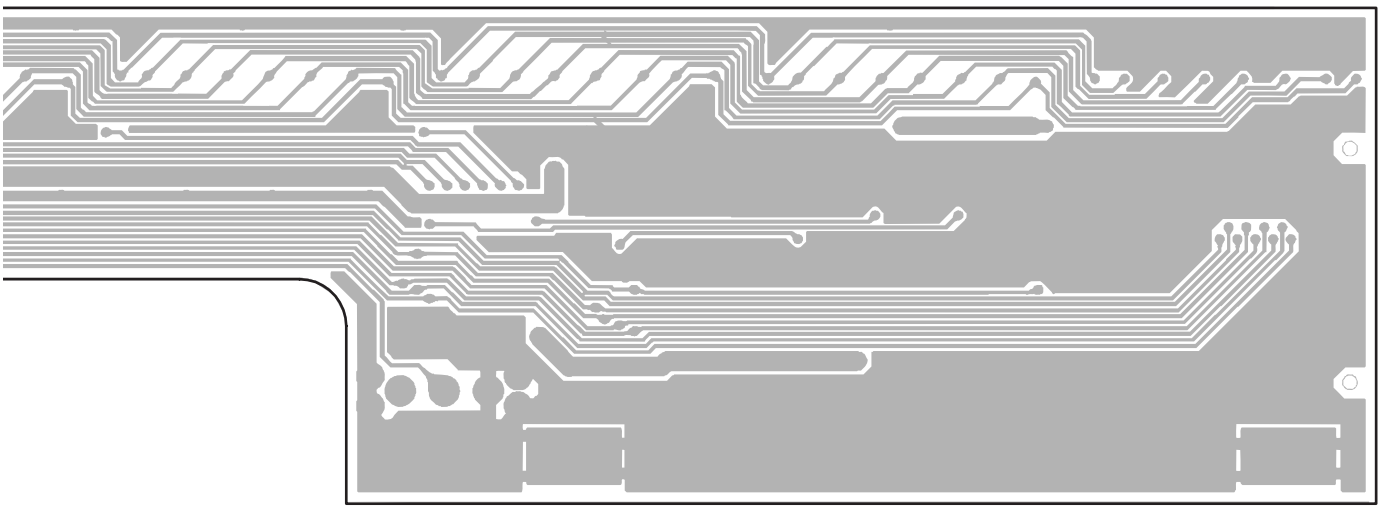
DT9 DT10 DT11 DT12 DT13 DT14 DT15 DT16



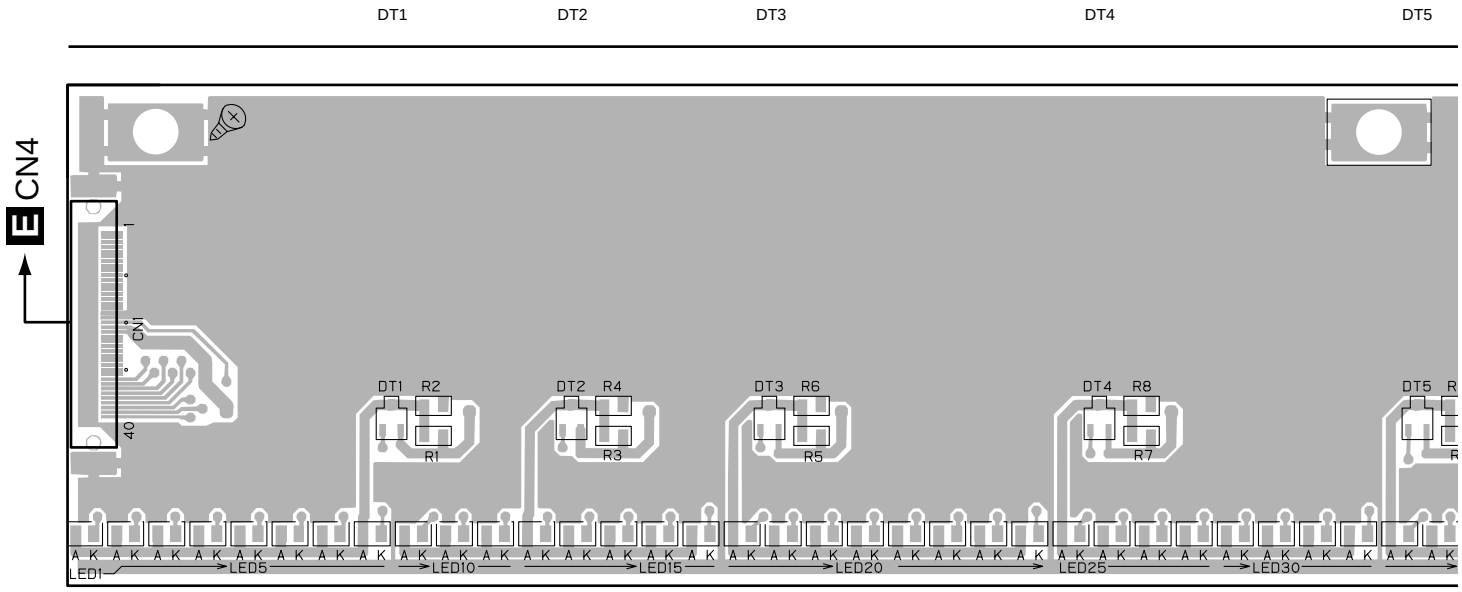
E CN1

SIDE A

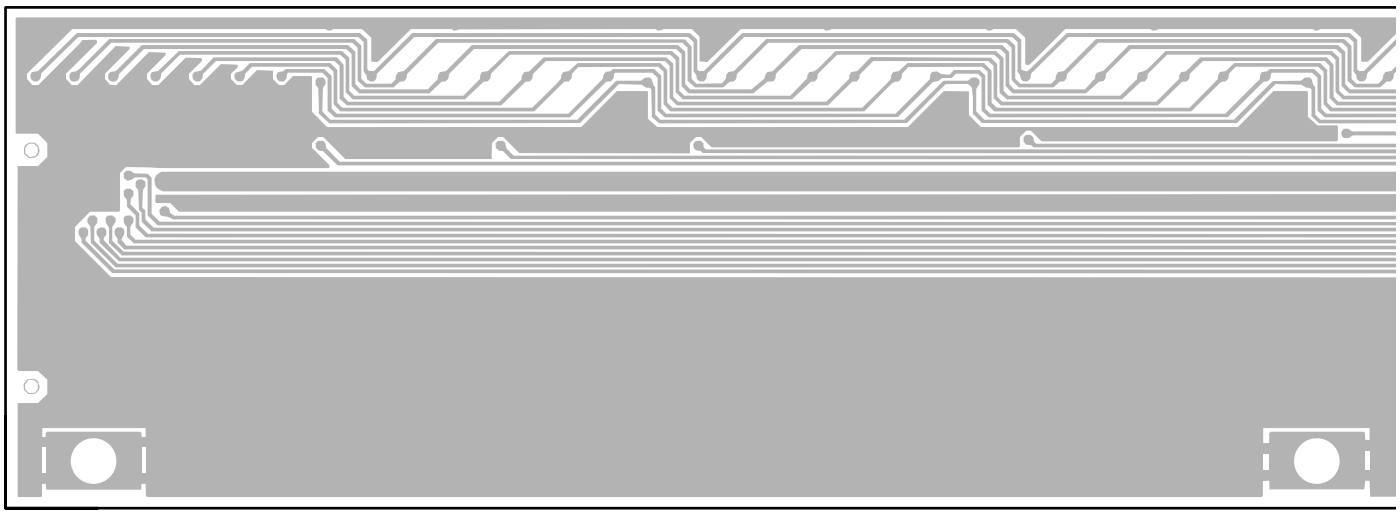
SIDE B



4.6 LED-F ASSY

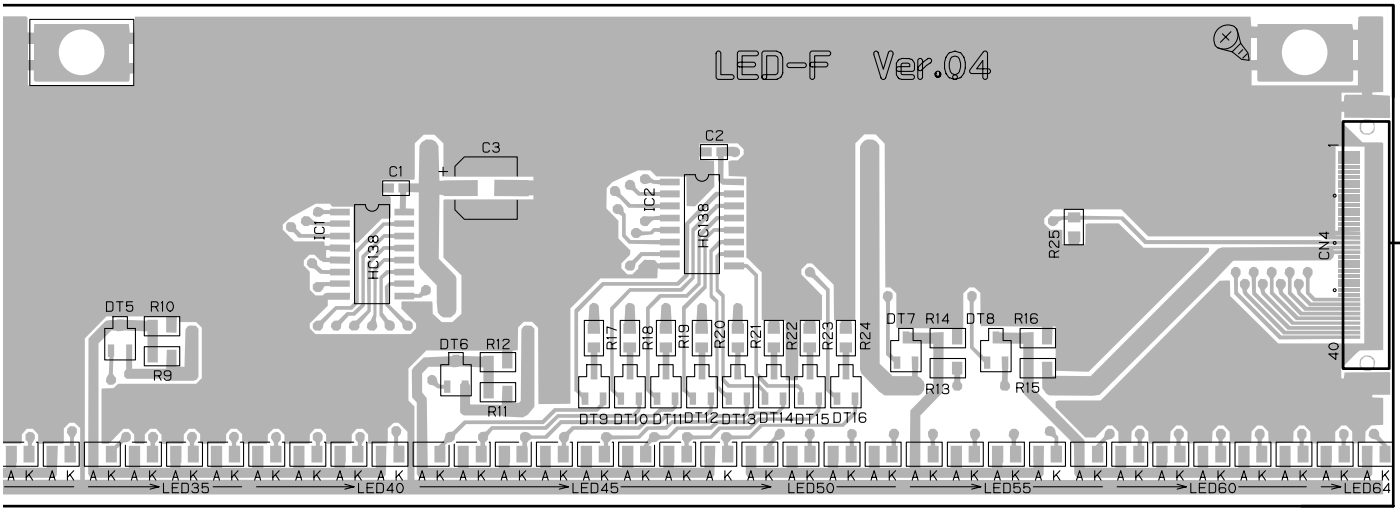


F LED-F ASSY



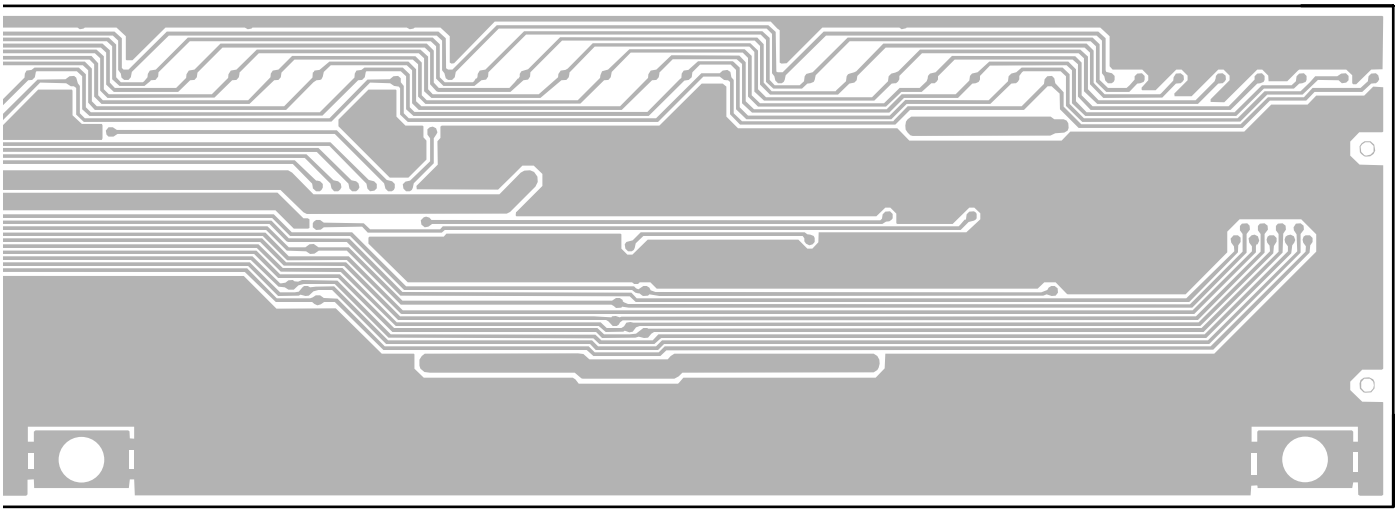
DT5 IC1 DT6 IC2 DT7 DT8

DT9 DT10 DT11 DT12 DT13 DT14 DT15 DT16

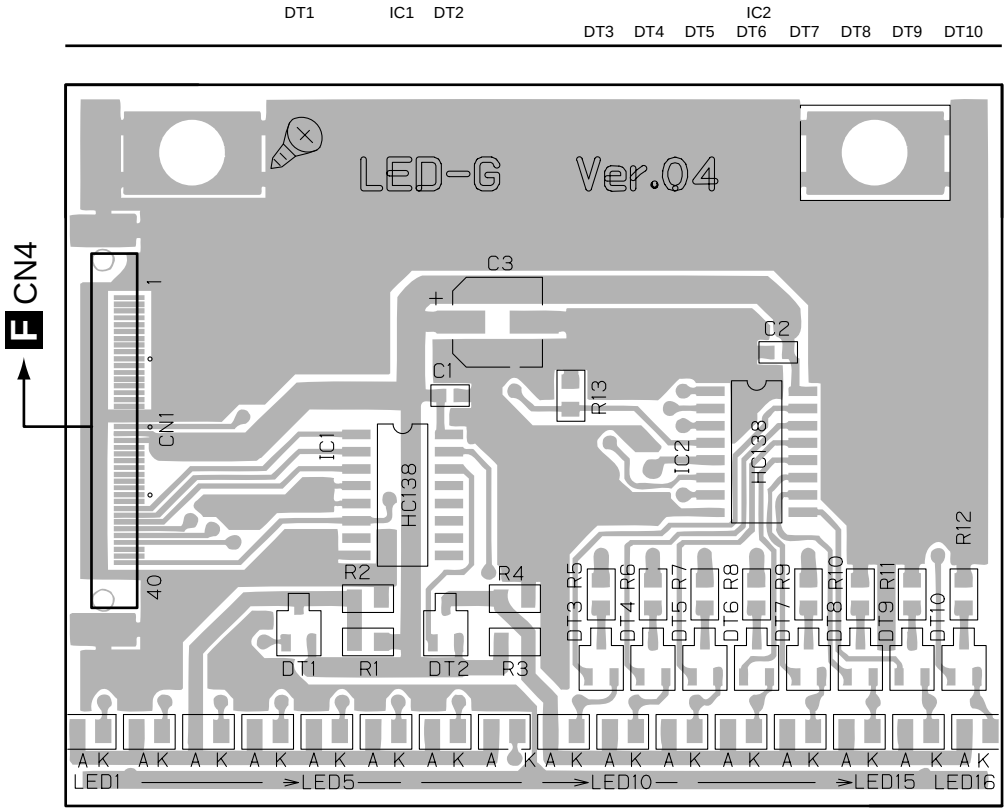


SIDE A

SIDE B



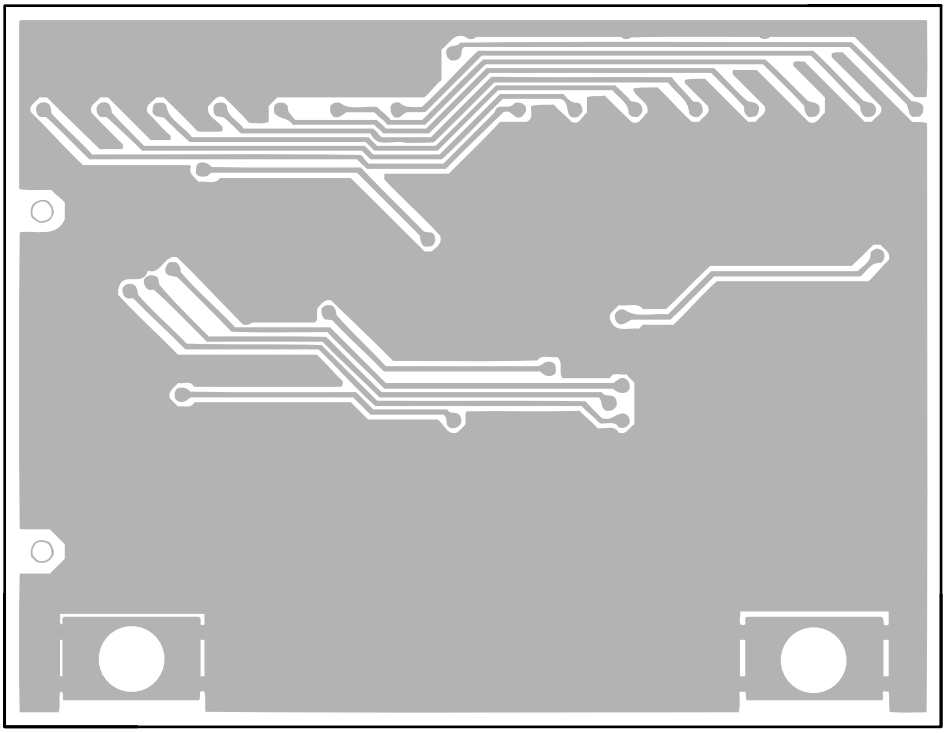
4.7 LED-G ASSY



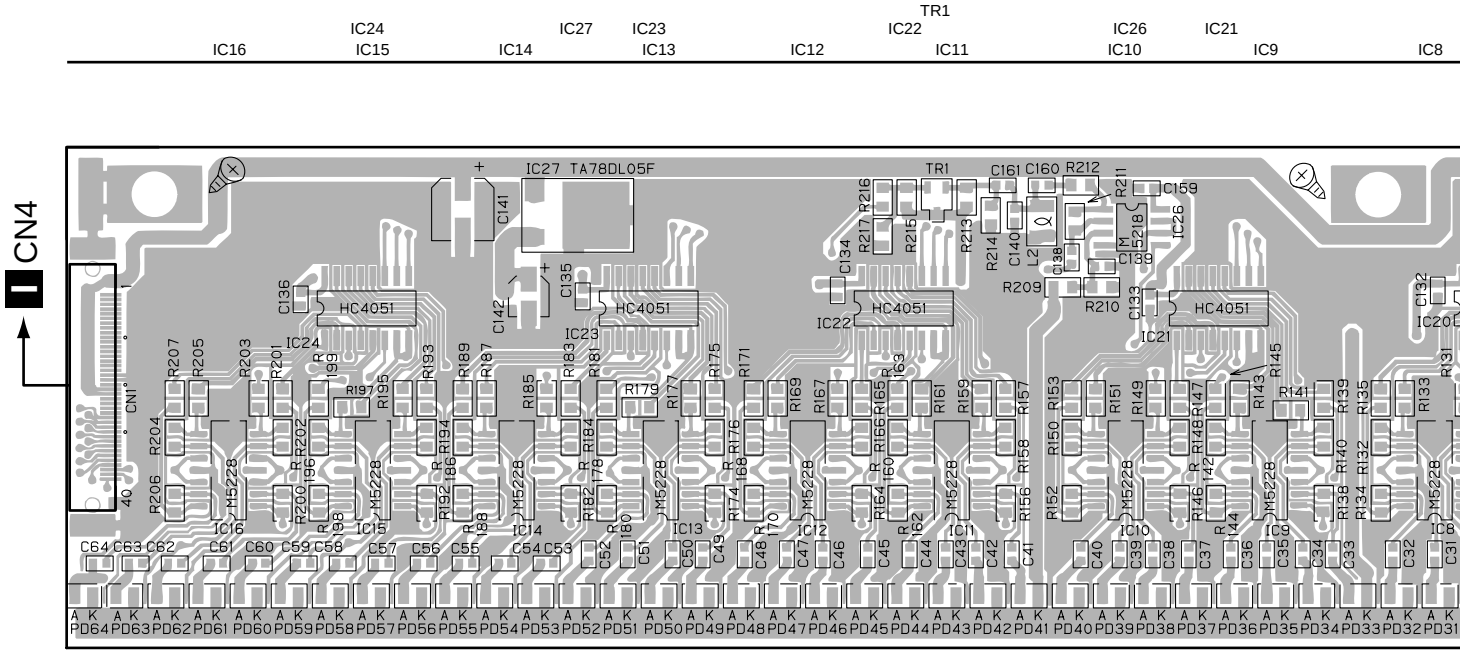
SIDE A

G LED-G ASSY

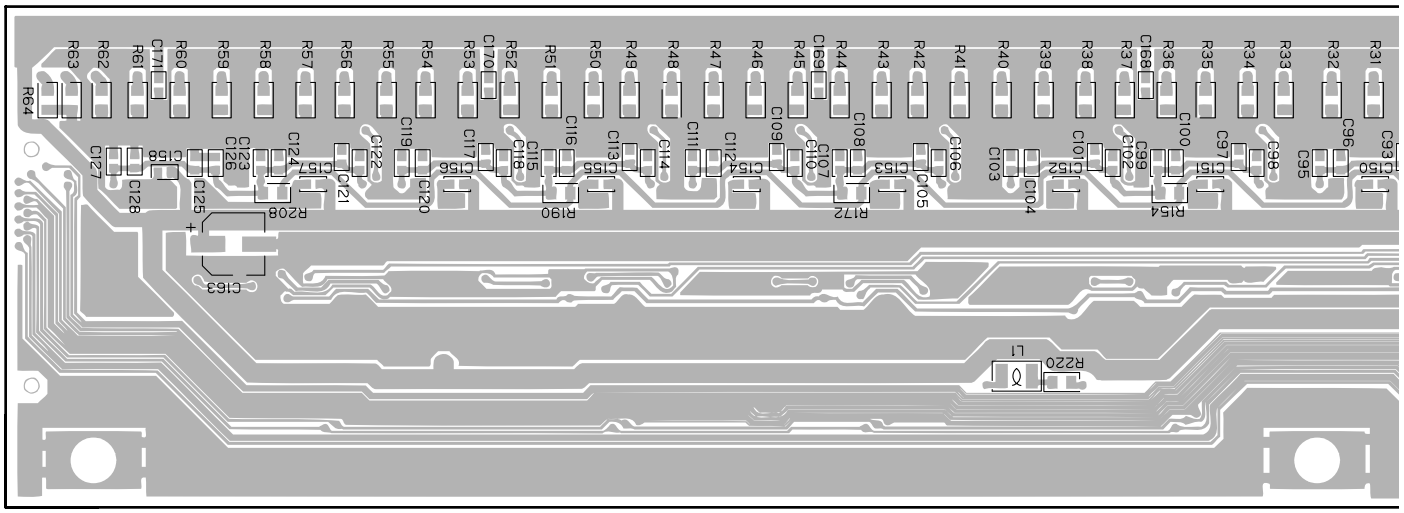
SIDE B

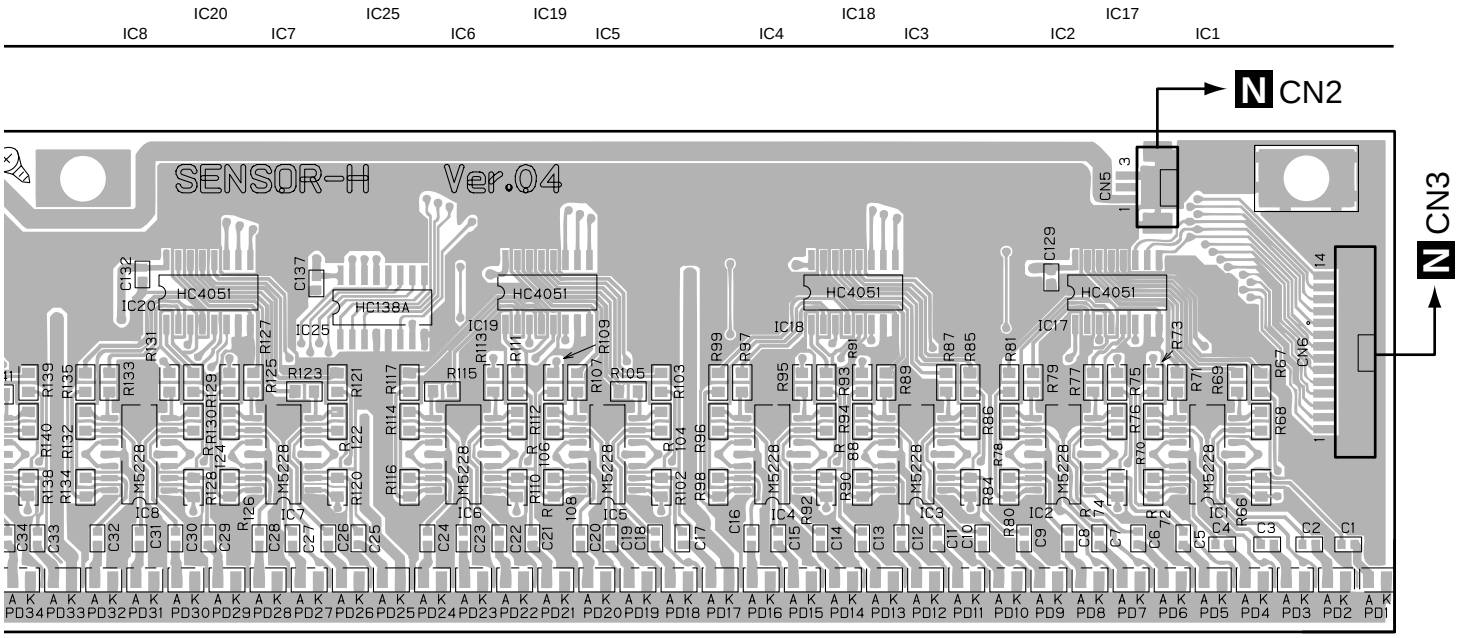


4.8 SENSOR-H ASSY



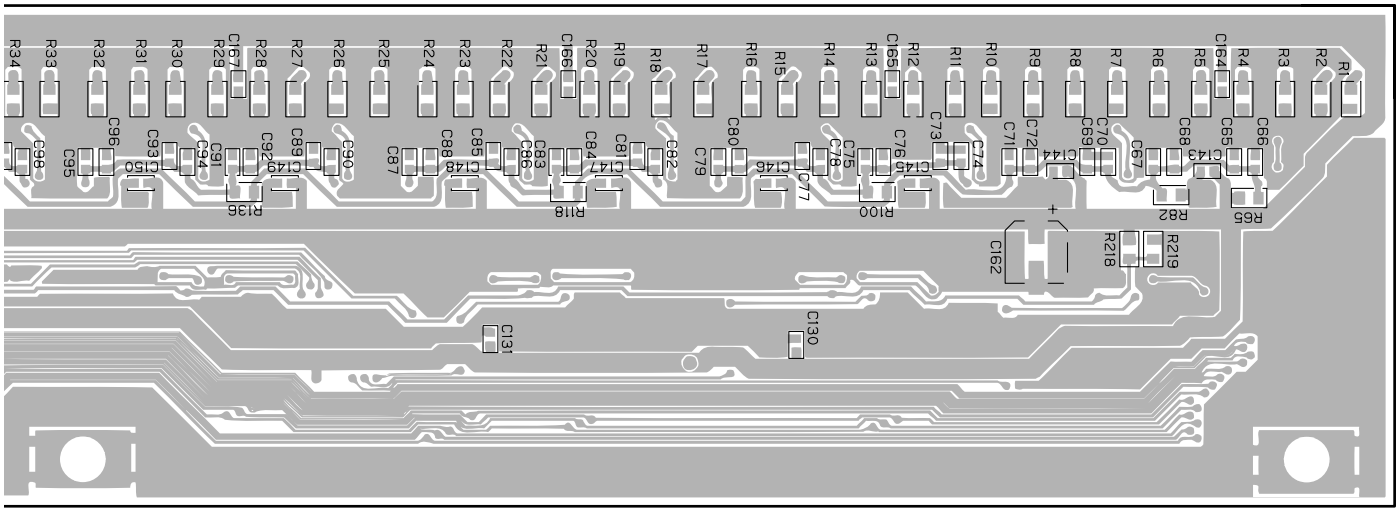
H SENSOR-H ASSY



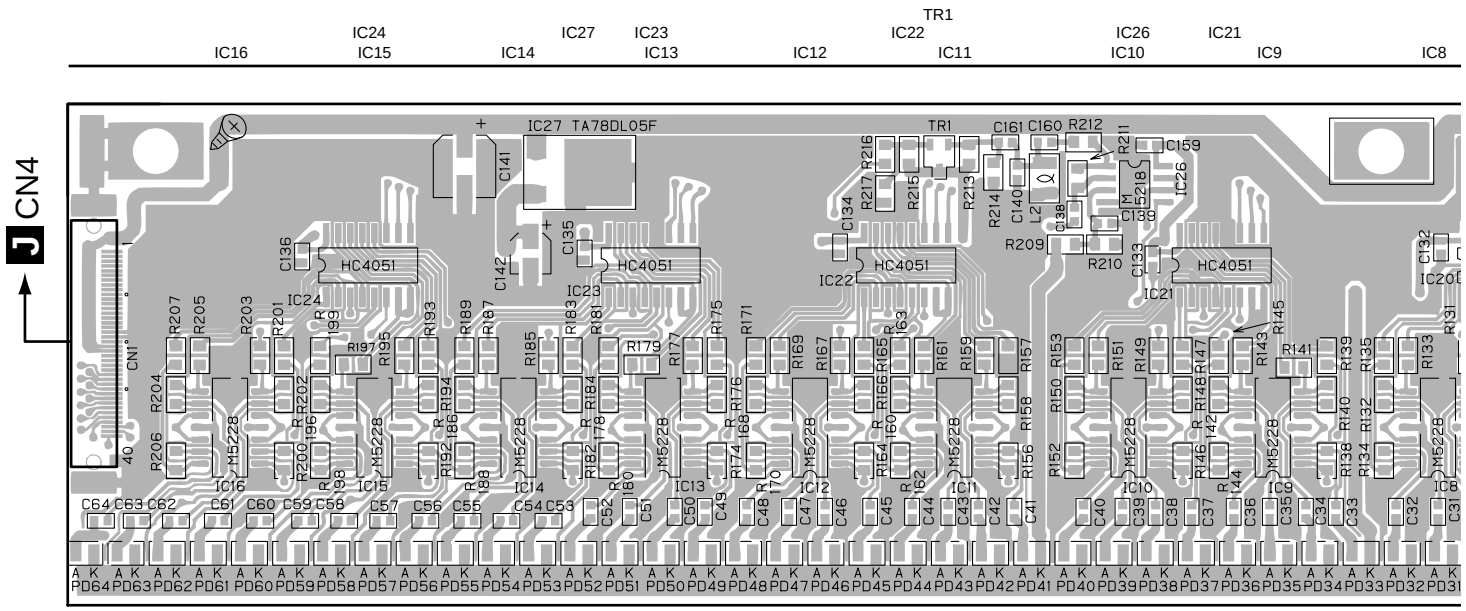

IC20
IC25
IC19
IC18
IC17
IC8
IC7
IC6
IC5
IC4
IC3
IC2
IC1
N CN2
N CN3
SENSOR-H Ver.04
CN5
CN6
HC4051
HC138A
M5228

SIDE A

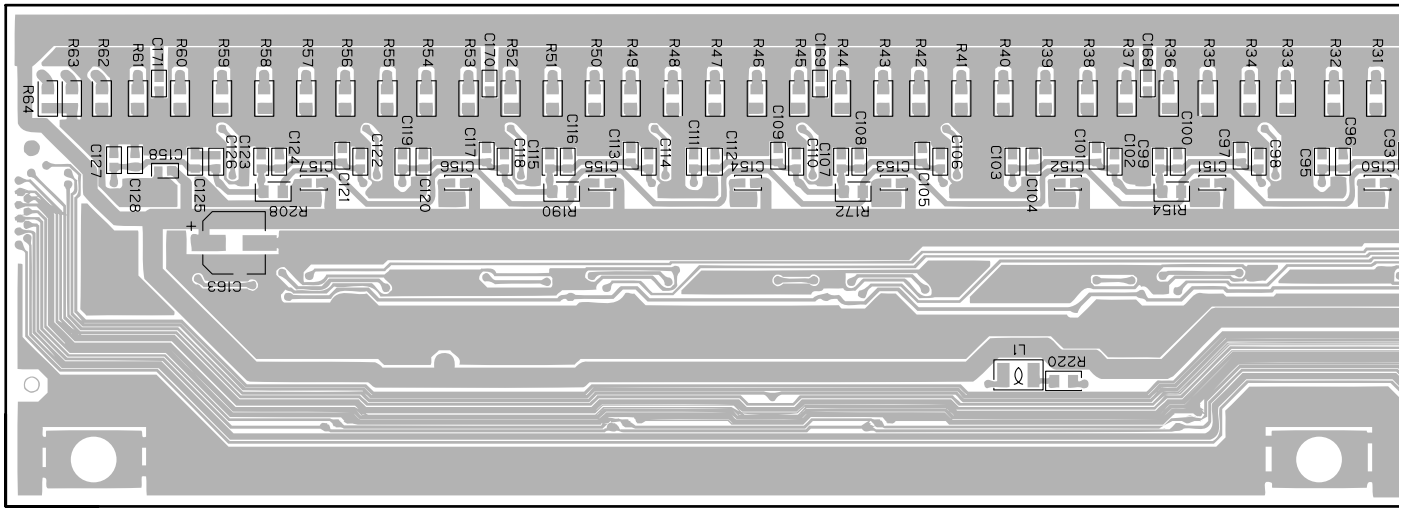
SIDE B

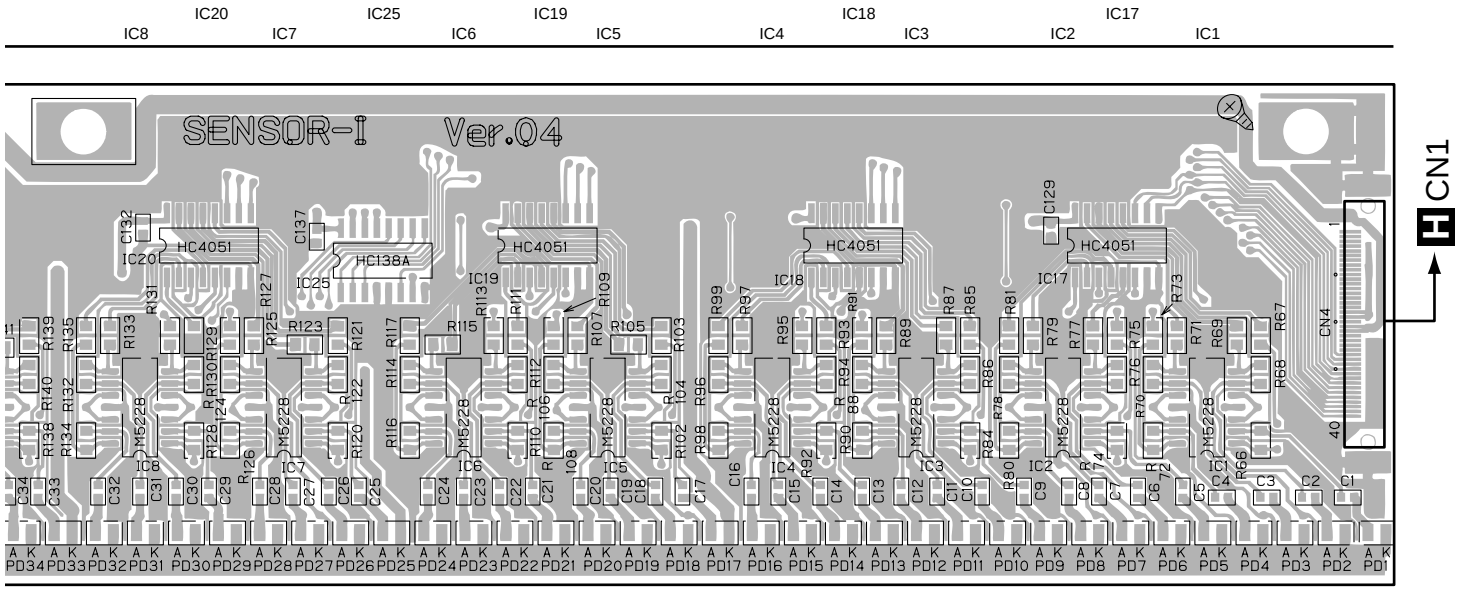


4.9 SENSOR-I ASSY


J CN4
IC16 IC24 IC15 IC14 IC27 IC23 IC13 IC12 TR1 IC22 IC11 IC26 IC10 IC21 IC9 IC8
IC27 TA78DL05F
HC4051
M5228
PD64 PD63 PD62 PD61 PD60 PD59 PD58 PD57 PD56 PD55 PD54 PD53 PD52 PD51 PD50 PD49 PD48 PD47 PD46 PD45 PD44 PD43 PD42 PD41 PD40 PD39 PD38 PD37 PD36 PD35 PD34 PD33 PD32

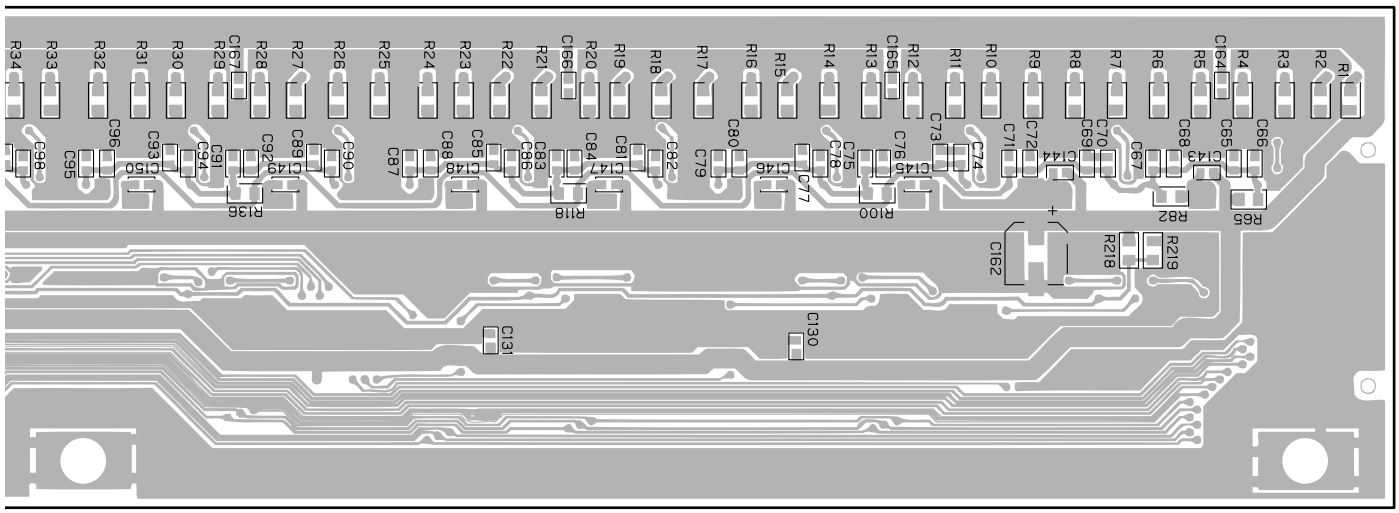
I SENSOR-I ASSY



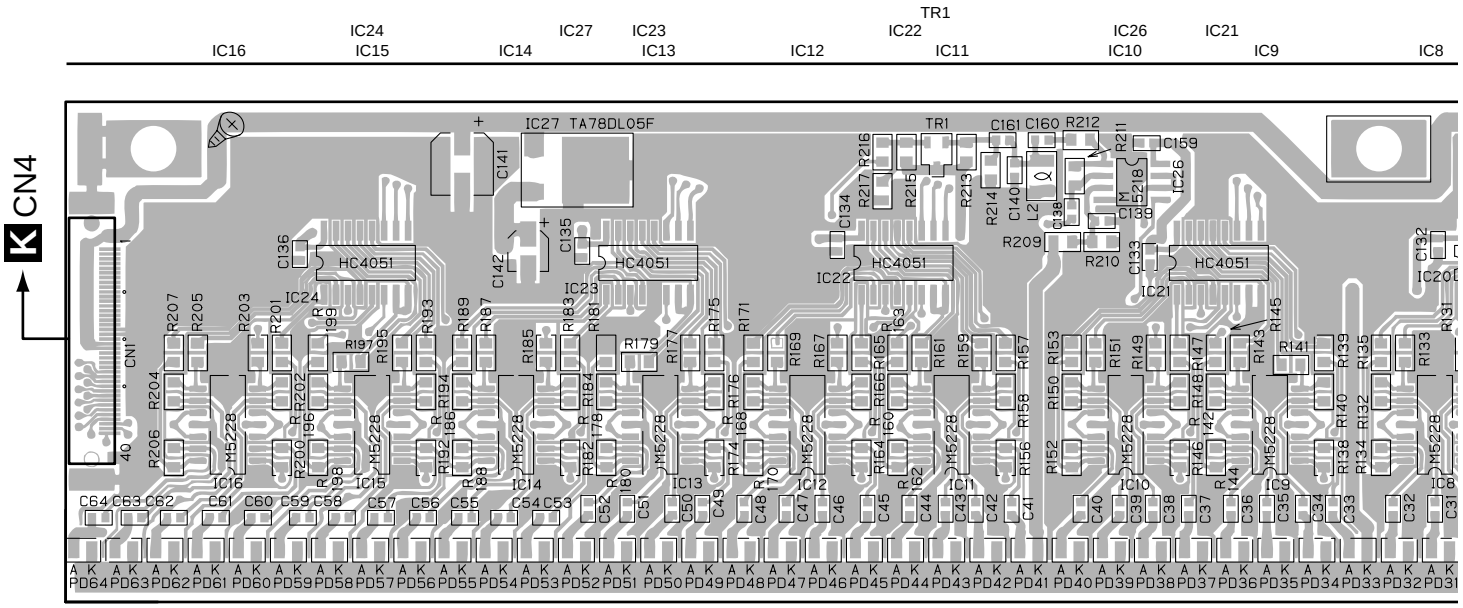

IC20
IC25
IC19
IC18
IC17
IC8
IC7
IC6
IC5
IC4
IC3
IC2
IC1
SENSOR-I Ver.04
HC4051
HC138A
CN1
CN4

SIDE A

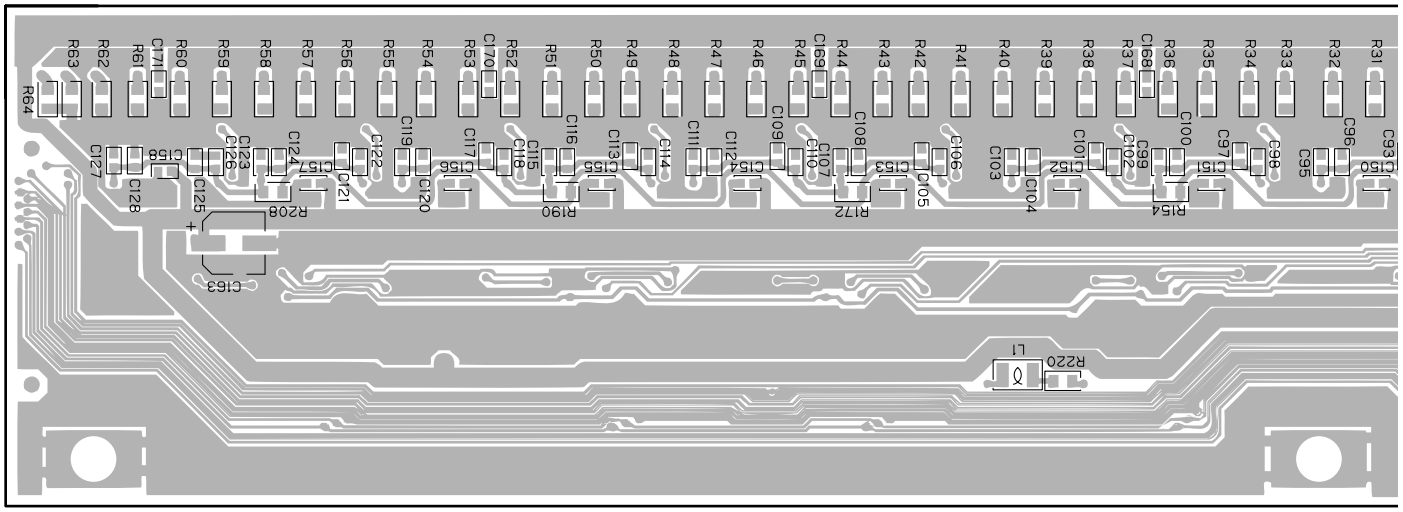
SIDE B

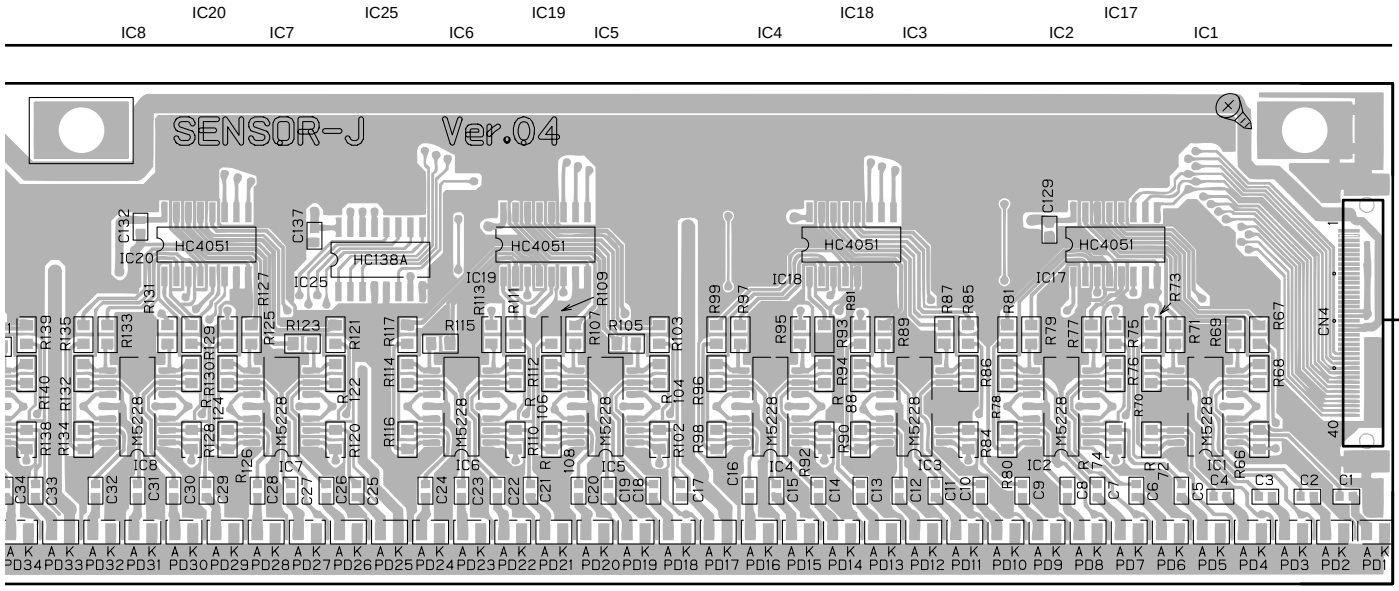


4.10 SENSOR-J ASSY



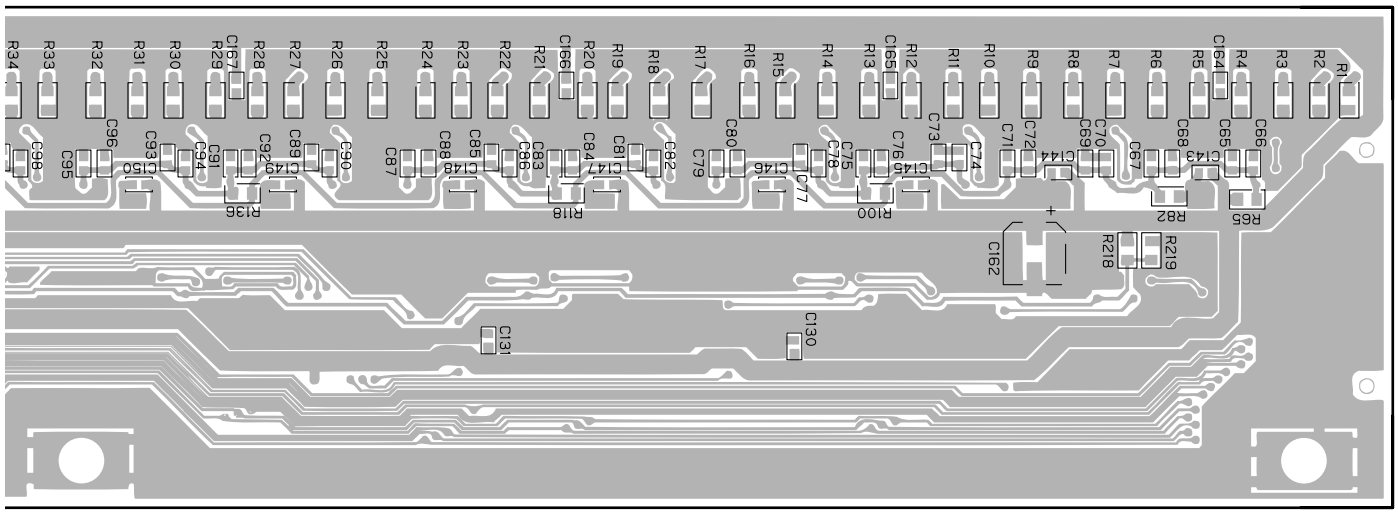
J SENSOR-J ASSY



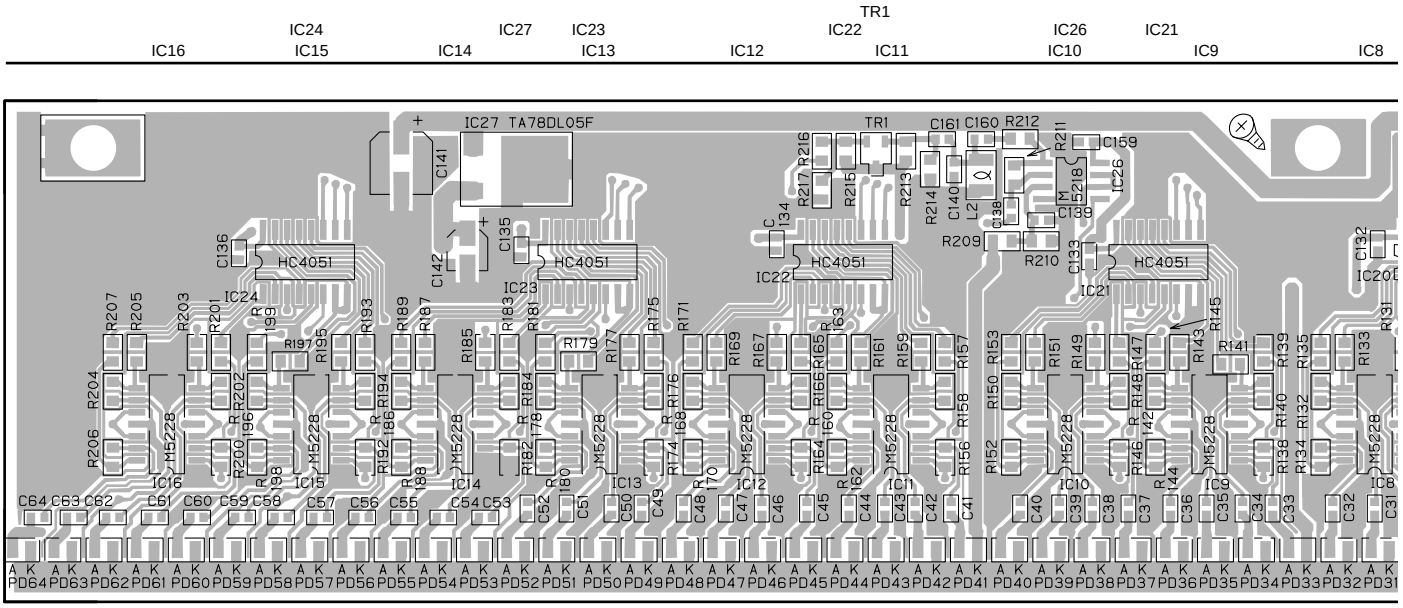

SENSOR-J Ver.04
CN1
IC20 IC25 IC19 IC18 IC17
IC8 IC7 IC6 IC5 IC4 IC3 IC2 IC1

SIDE A

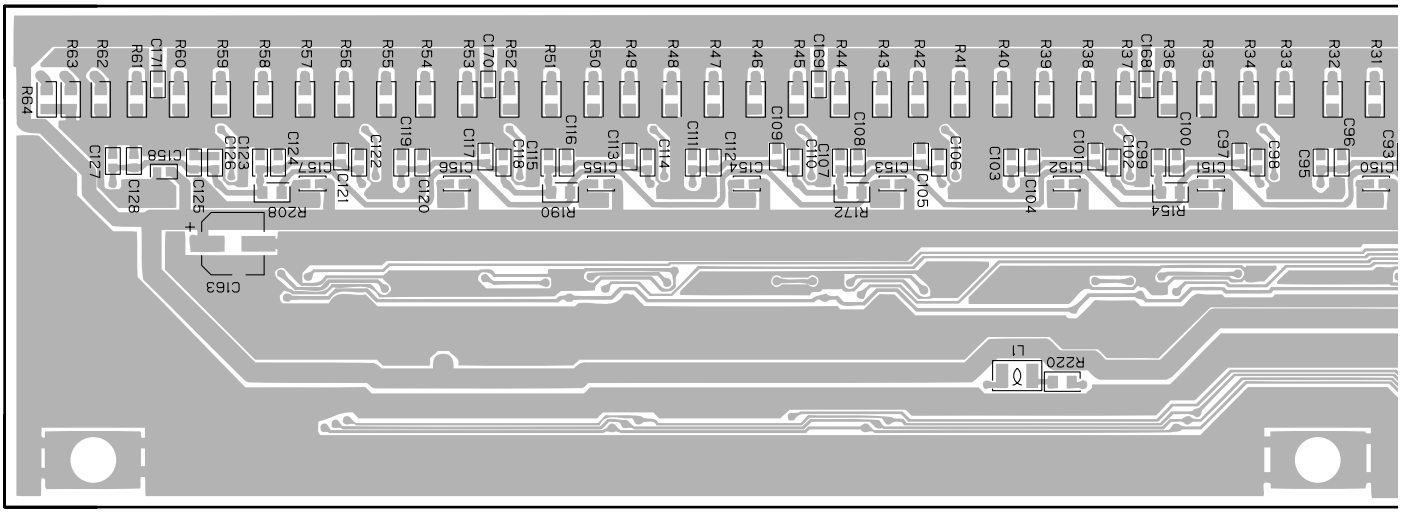
SIDE B

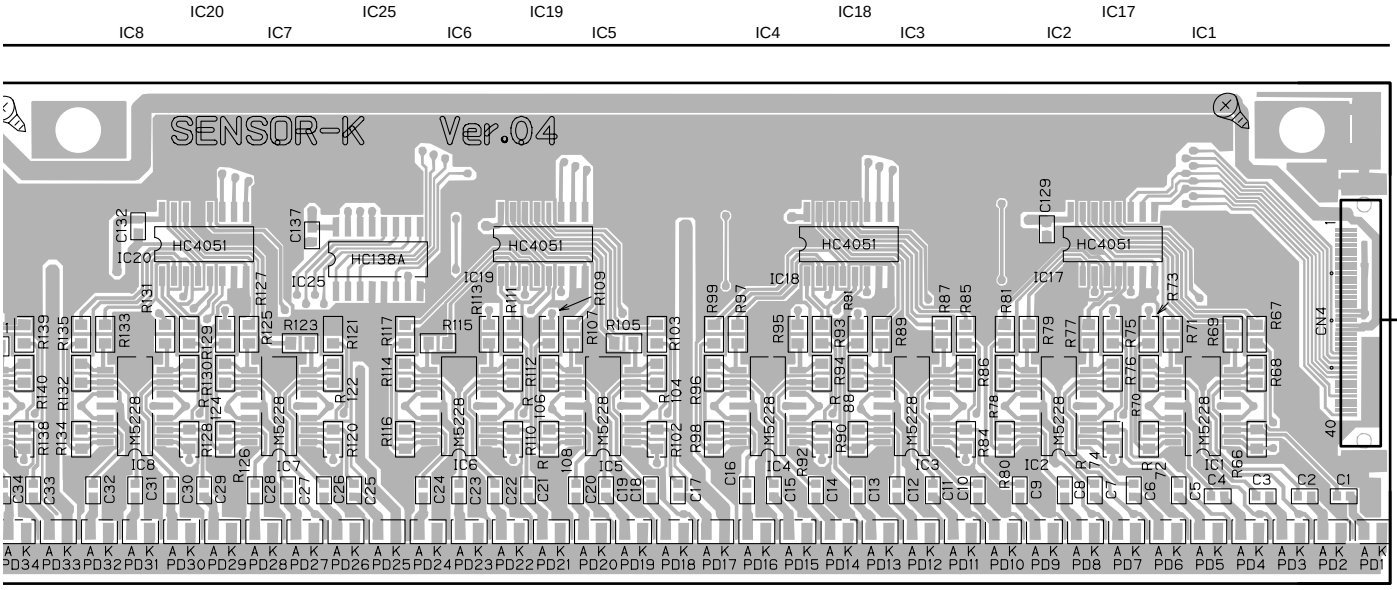


4.11 SENSOR-K ASSY



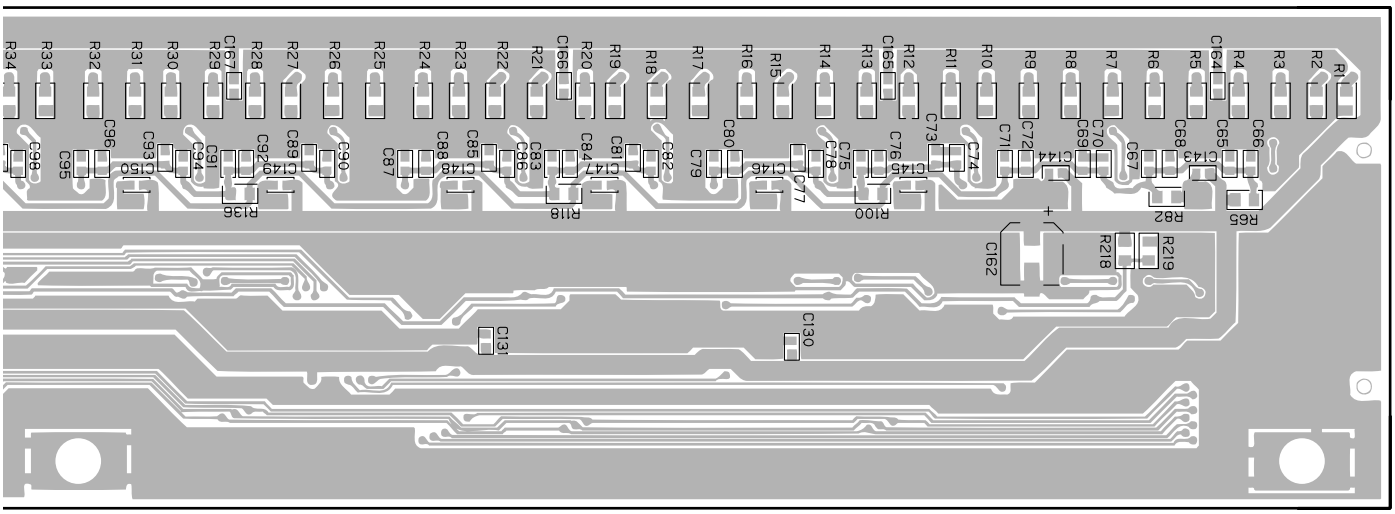
K SENSOR-K ASSY



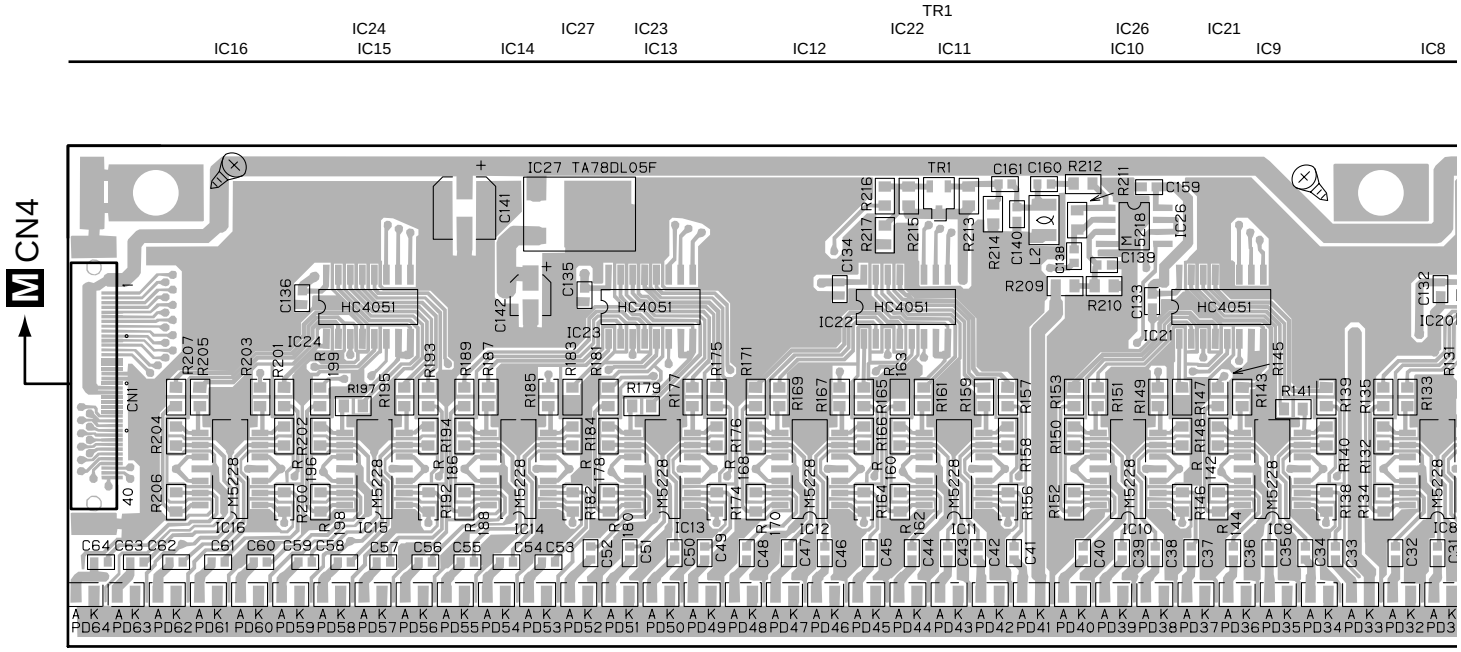

SENSOR-K Ver.04
IC20
IC25
IC19
IC18
IC17
IC8
IC7
IC6
IC5
IC4
IC3
IC2
IC1
HC4051
HC138A
CN1
CN4

SIDE A

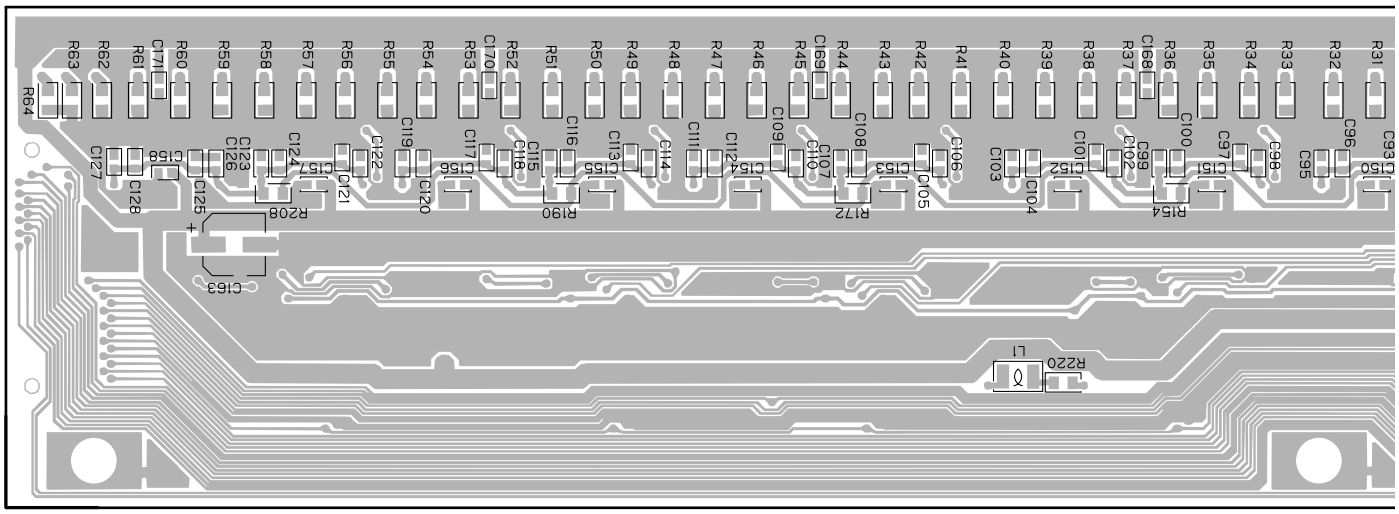
SIDE B

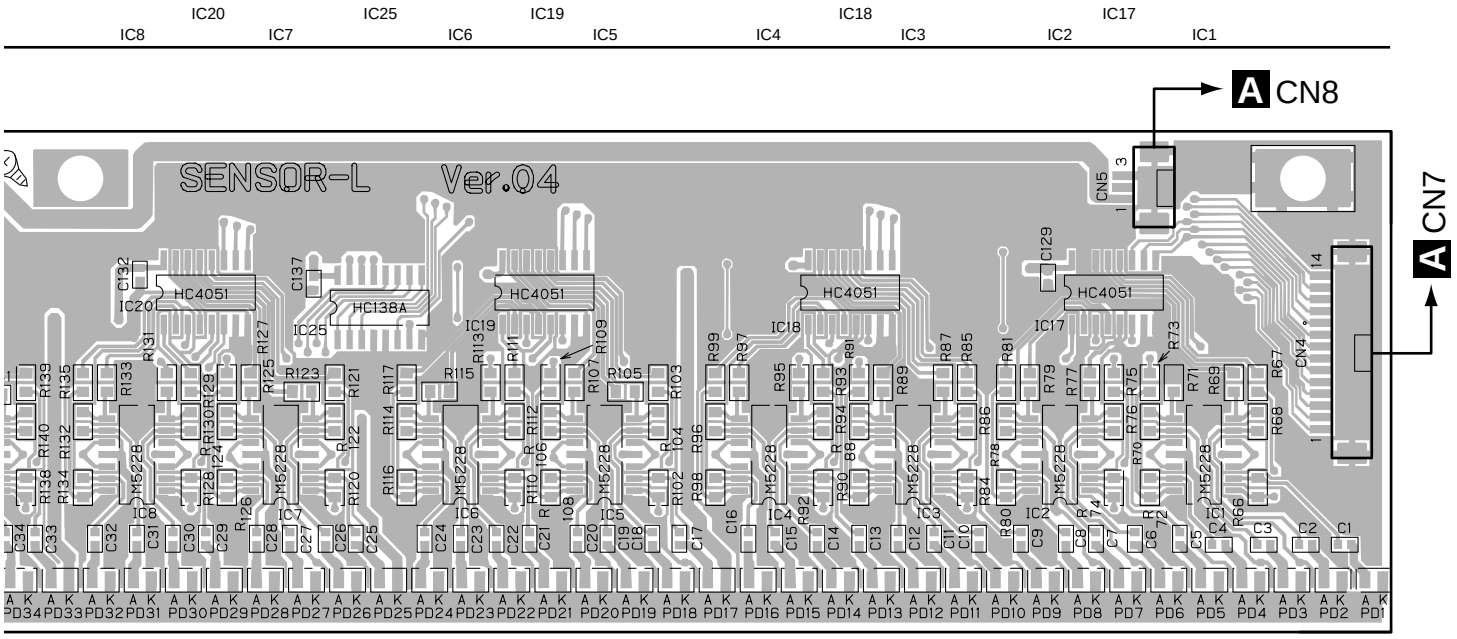


4.12 SENSOR-L ASSY


M CN4
IC16 IC24 IC15 IC14 IC27 IC23 IC13 IC12 TR1 IC22 IC11 IC26 IC21 IC10 IC9 IC8
IC27 TA78DL05F
HC4051
M5228
PD64 PD63 PD62 PD61 PD60 PD59 PD58 PD57 PD56 PD55 PD54 PD53 PD52 PD51 PD50 PD49 PD48 PD47 PD46 PD45 PD44 PD43 PD42 PD41 PD40 PD39 PD38 PD37 PD36 PD35 PD34 PD33 PD32

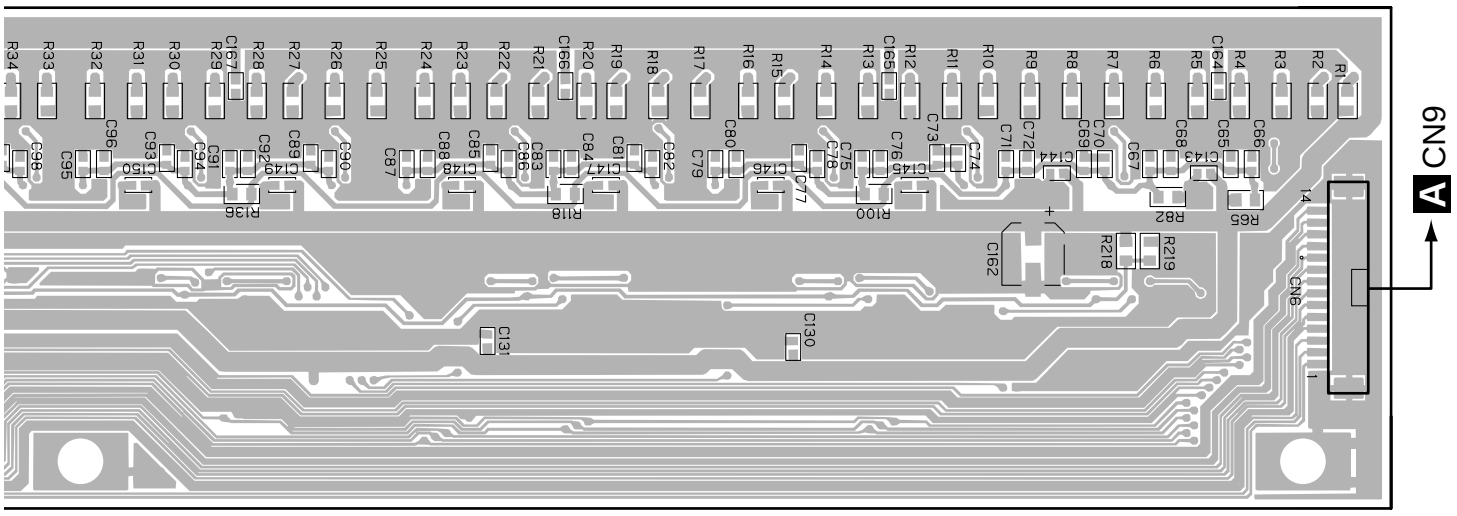
L SENSOR-L ASSY



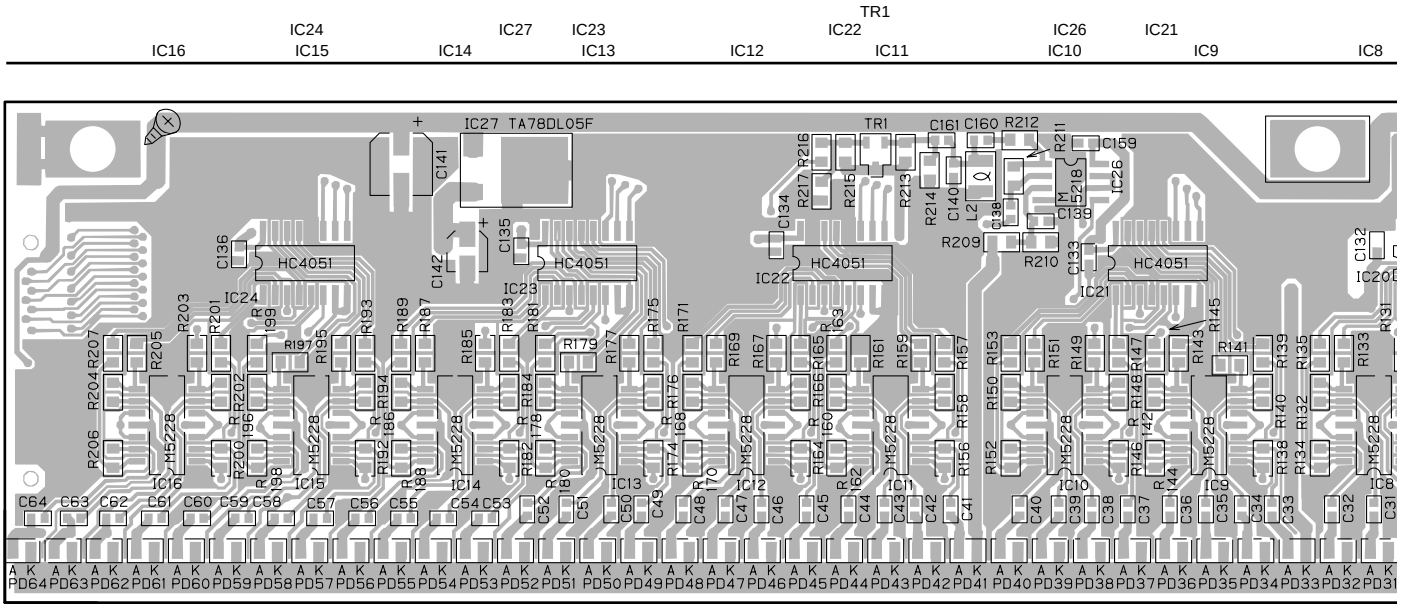

IC20
IC25
IC19
IC18
IC17
IC8
IC7
IC6
IC5
IC4
IC3
IC2
IC1
A CN8
A CN7
SENSOR-L Ver.04
HC4051
HC138A
HC4051
HC4051
HC4051
M5228

SIDE A

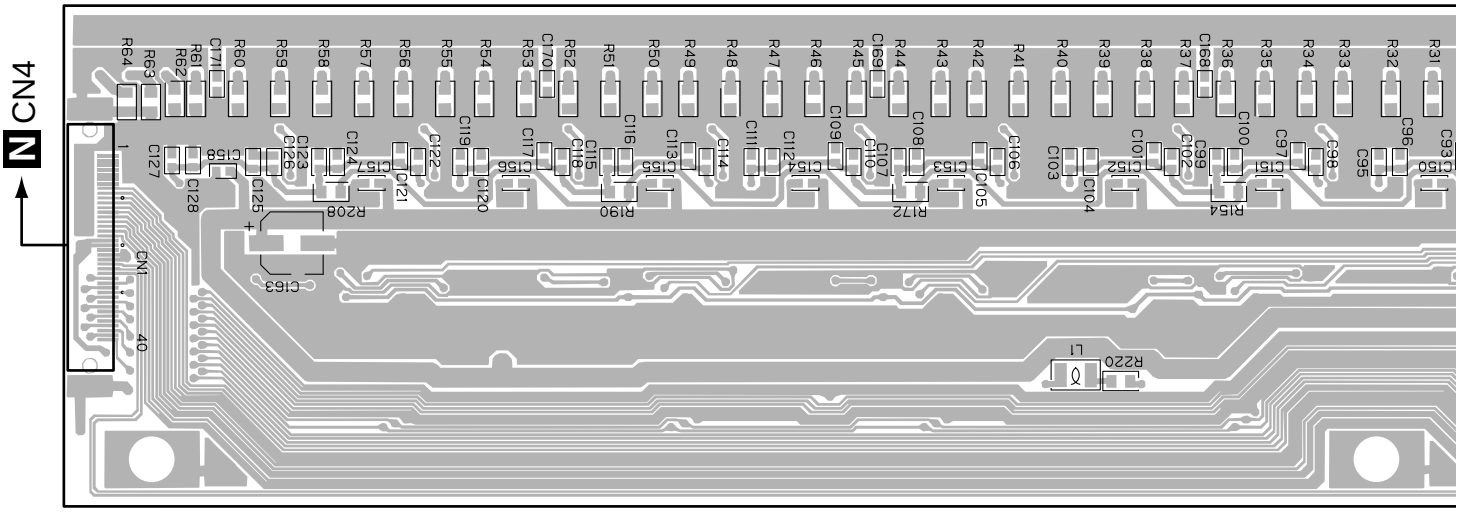
SIDE B

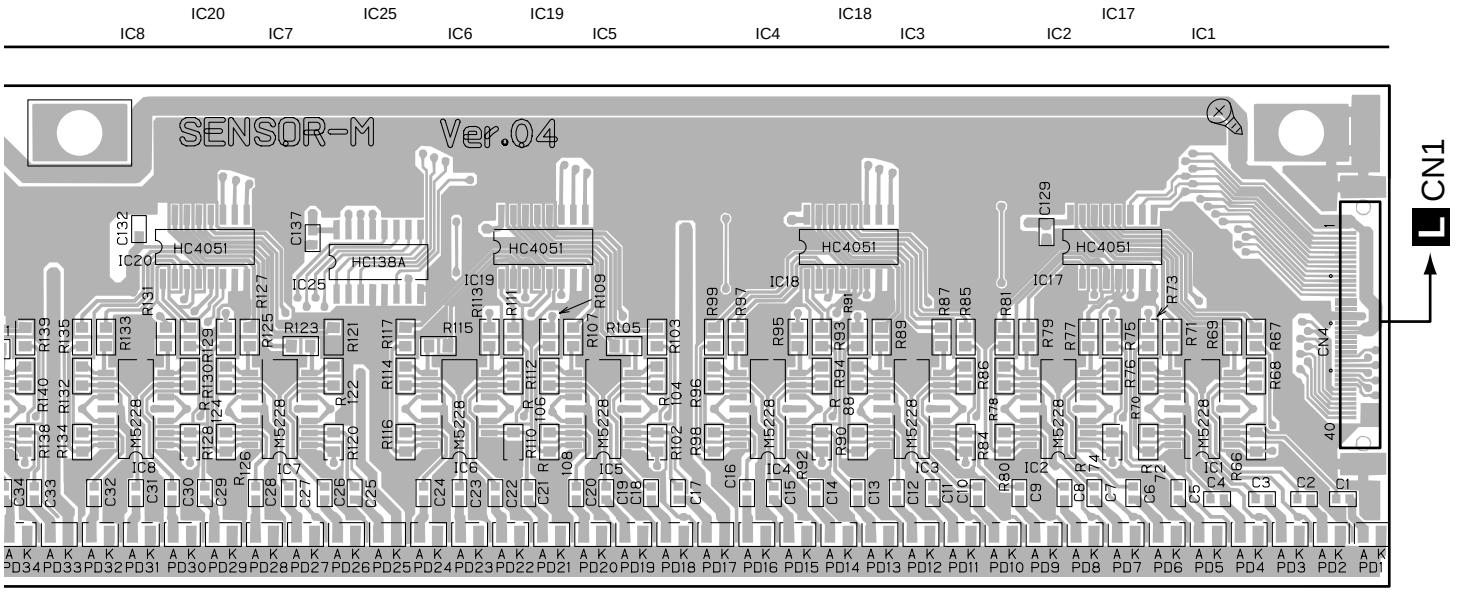

A CN9
CN8

4.13 SENSOR-M ASSY



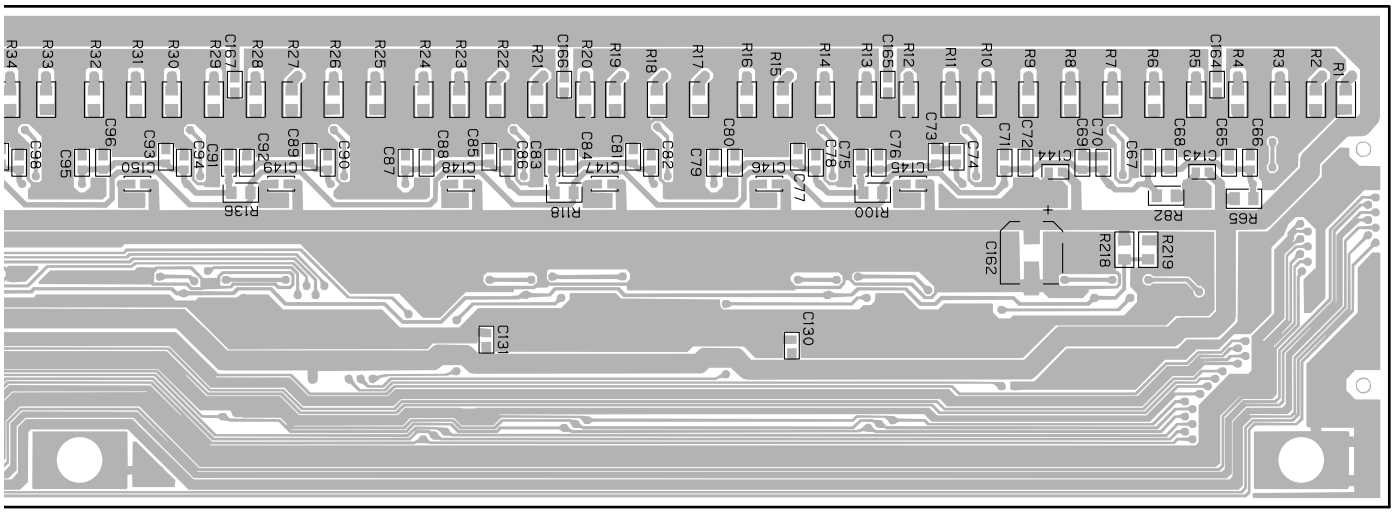
M SENSOR-M ASSY



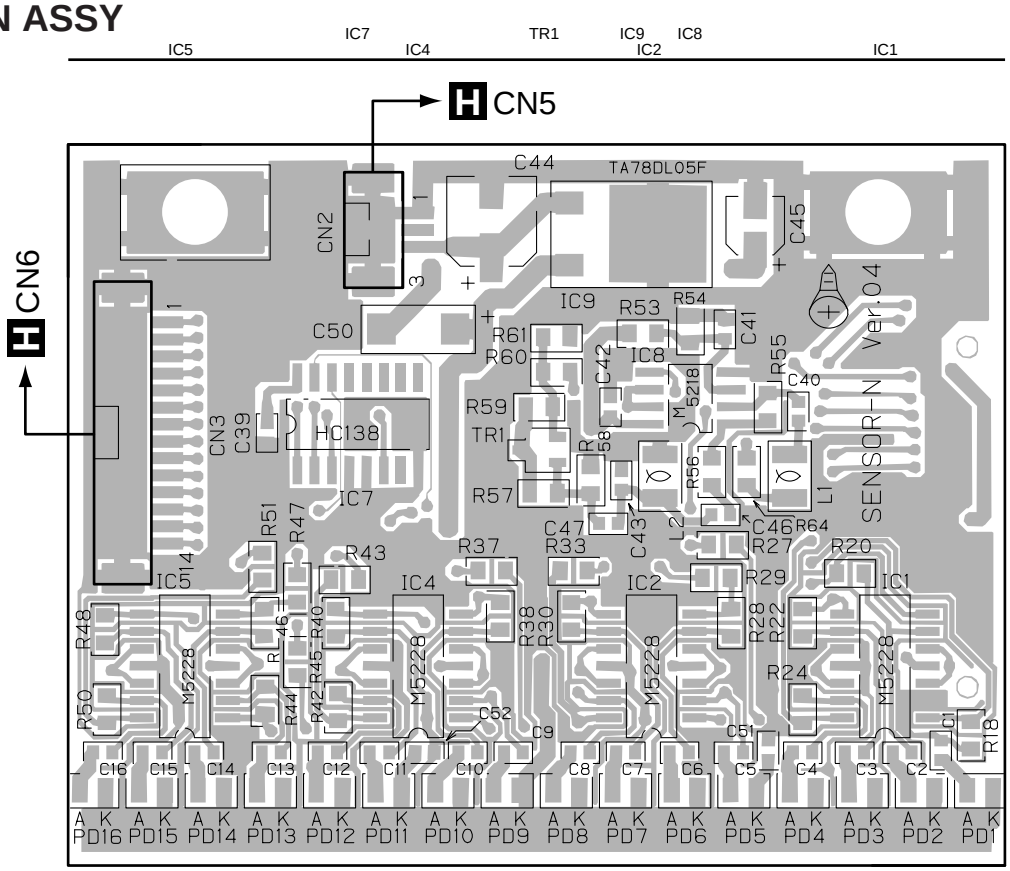

SENSOR-M Ver.04
IC20
IC8
IC7
IC25
IC6
IC19
IC5
IC18
IC4
IC3
IC17
IC2
IC1
HC4051
HC138A
CN1

SIDE A

SIDE B



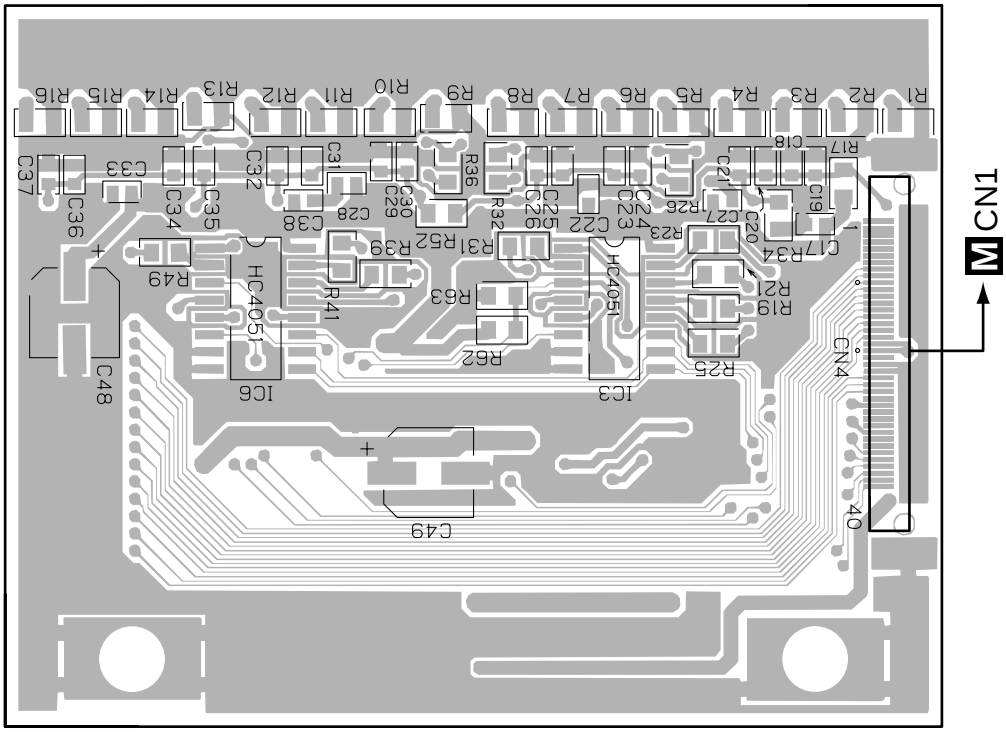
4.14 SENSOR-N ASSY



SIDE A

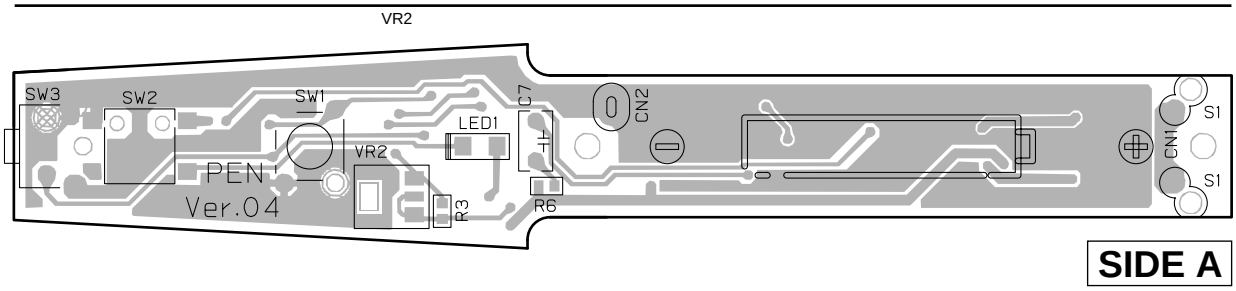
N SENSOR-N ASSY

SIDE B



IC6

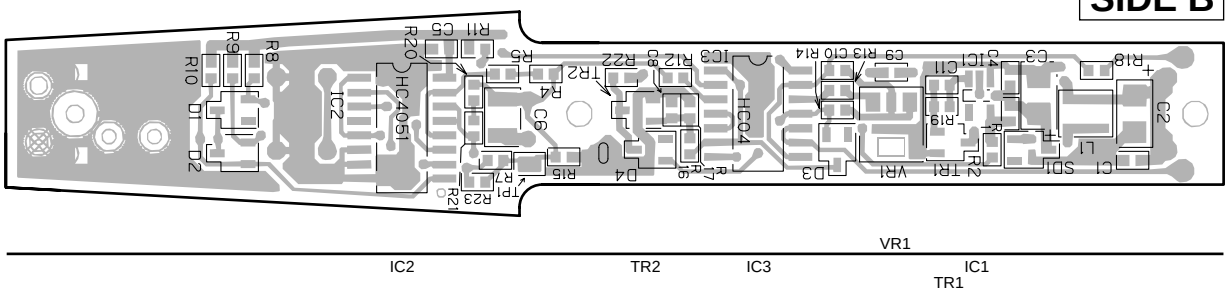
4.15 PEN PCB ASSY



SIDE A

O PEN PCB ASSY

SIDE B



5. PCB PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
●*When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.

PCB ASSY LIST

PDK-50HW2

		LED-A ASSY	AZW1184
		LED-B ASSY	AZW1170
		LED-C ASSY	AZW1171
		LED-D ASSY	AZW1172
		LED-E ASSY	AZW1185
		LED-F ASSY	AZW1174
		LED-G ASSY	AZW1175
		SENSOR-H ASSY	AZW1176
		SENSOR-I ASSY	AZW1177
		SENSOR-J ASSY	AZW1178
		SENSOR-K ASSY	AZW1179
		SENSOR-L ASSY	AZW1180
		SENSOR-M ASSY	AZW1181
		SENSOR-N ASSY	AZW1182

PDK-50HW2 PEN

		PEN PCB ASSY	AZW1183

A LED-A ASSY

SEMICONDUCTORS

		IC1	AZQ1111
		IC201	AZQ1096
		IC17, IC19, IC20, IC22	AZQ1097
		IC23	AZQ1098
		IC203	TC74HC00AF
		IC202	AZQ1115
		IC2, IC3	TC74HC138AF
		IC5- IC16	AZQ1100
		IC18, IC21	AZQ1116
		IC205	TC74HC4066AF
		IC204	TC4538BF
		IC24	UPD4721GS-GJG
		IC206	AZQ1113
		IC4	AZQ1114
		TR1, TR2, TR4, TR5, TR201- TR204	AZQ1102
		TR206- TR209, TR211- TR213	AZQ1102
		TR3, TR6, TR205, TR210	AZQ1103
		DT1- DT18	AZQ1105
		D1- D4, D201	1SS184
		LED1- LED64	AZQ1108
		LED65	AZQ1109

COIL AND FILTERS

		L1, L3 (220µH)	AZT1217
		L201- L204 (820µH)	AZT1218

SWITCHES AND RELAYS

		SW1	AZS1138

RESISTORS

		VR1, VR2 (5kΩ)	AZC2041

OTHERS

		X1 (19.6608MHz)	AZT1220
		X201 (3MHz)	AZT1221
		CN4 40P CONNECTER	AZK1141

B LED-B ASSY

SEMICONDUCTORS

		IC1, IC2	TC74HC138AF
		DT1- DT16	AZQ1105
		LED1- LED64	AZQ1108

OTHERS

		CN1 40P PLUG	AZK1140
		CN4 40P CONNECTER	AZK1141

C LED-C ASSY

SEMICONDUCTORS

		IC1, IC2	TC74HC138AF
		DT1- DT16	AZQ1105
		LED1- LED64	AZQ1108

Mark	No.	Description	Part No.
OTHERS			
	CN1	40P PLUG	AZK1140
	CN4	40P CONNECTER	AZK1141

D LED-D ASSY

SEMICONDUCTORS			
	IC1, IC2		TC74HC138AF
	DT1- DT16		AZQ1105
	LED1- LED64		AZQ1108
OTHERS			
	CN1	40P PLUG	AZK1140

E LED-E ASSY

SEMICONDUCTORS			
	IC1, IC2		TC74HC138AF
	DT1- DT16		AZQ1105
	LED1- LED64		AZQ1108
SWITCHES AND RELAYS			
	SW1		AZS1139
OTHERS			
	CN4	40P CONNECTER	AZK1141

F LED-F ASSY

SEMICONDUCTORS			
	IC1, IC2		TC74HC138AF
	DT1- DT16		AZQ1105
	LED1- LED64		AZQ1108
OTHERS			
	CN1	40P PLUG	AZK1140
	CN4	40P CONNECTER	AZK1141

G LED-G ASSY

SEMICONDUCTORS			
	IC1, IC2		TC74HC138AF
	DT1- DT10		AZQ1105
	LED1- LED16		AZQ1108
OTHERS			
	CN1	40P PLUG	AZK1140

Mark	No.	Description	Part No.

H SENSOR-H ASSY

SEMICONDUCTORS			
	IC26		AZQ1112
	IC1- IC16		AZQ1097
	IC25		TC74HC138AF
	IC17- IC24		AZQ1116
	IC27		AZQ1099
	TR1		AZQ1102
	PD1- PD64		AZQ1107
COIL AND FILTERS			
	L1, L2 (220µH)		AZT1217
OTHERS			
	CN1	40P PLUG	AZK1140

I SENSOR-I ASSY

SEMICONDUCTORS			
	IC26		ZAQ1112
	IC1- IC16		AZQ1097
	IC25		TC74HC138AF
	IC17- IC24		AZQ1116
	IC27		AZQ1099
	TR1		AZQ1102
	PD1- PD64		AZQ1107
COIL AND FILTERS			
	L1, L2 (220µH)		AZT1217
OTHERS			
	CN1	40P PLUG	AZK1140
	CN4	40P CONNECTER	AZK1141

J SENSOR-J ASSY

SEMICONDUCTORS			
	IC26		ZAQ1112
	IC1- IC16		AZQ1097
	IC25		TC74HC138AF
	IC17- IC24		AZQ1116
	IC27		AZQ1099
	TR1		AZQ1102
	PD1- PD64		AZQ1107
COIL AND FILTERS			
	L1, L2 (220µH)		AZT1217
OTHERS			
	CN1	40P PLUG	AZK1140
	CN4	40P CONNECTER	AZK1141

Mark	No.	Description	Part No.

K SENSOR-K ASSY

SEMICONDUCTORS

	IC26	AZQ1112
	IC1- IC16	AZQ1097
	IC25	TC74HC138AF
	IC17- IC24	AZQ1116
	IC27	AZQ1099
	TR1	AZQ1102
	PD1- PD64	AZQ1107

COIL AND FILTERS

	L1, L2 (220mH)	AZT1217

OTHERS

	CN4 40P CONNECTER	AZK1141

L SENSOR-L ASSY

SEMICONDUCTORS

	IC26	AZQ1112
	IC1- IC16	AZQ1097
	IC25	TC74HC138AF
	IC17- IC24	AZQ1116
	IC27	AZQ1099
	TR1	AZQ1102
	PD1- PD64	AZQ1107

COIL AND FILTERS

	L1, L2 (220mH)	AZT1217

OTHERS

	CN1 40P PLUG	AZK1140

M SENSOR-M ASSY

SEMICONDUCTORS

	IC26	ZAQ1112
	IC1- IC16	AZQ1097
	IC25	TC74HC138AF
	IC17- IC24	AZQ1116
	IC27	AZQ1099
	TR1	AZQ1102
	PD1- PD64	AZQ1107

COIL AND FILTERS

	L1, L2 (220mH)	AZT1217

OTHERS

	CN1 40P PLUG	AZK1140
	CN4 40P CONNECTER	AZK1141

Mark	No.	Description	Part No.

N SENSOR-N ASSY

SEMICONDUCTORS

	IC8	AZQ1112
	IC1, IC2, IC4, IC5	AZQ1097
	IC7	TC74HC138AF
	IC3, IC6	AZQ1116
	IC9	AZQ1099
	TR1	AZQ1102
	PD1- PD16	AZQ1107

COIL AND FILTERS

	L1, L2 (220mH)	AZT1217

OTHERS

	CN4 40P CONNECTER	AZK1141

O PEN PCB ASSY

SEMICONDUCTORS

	IC1	AZQ1101
	IC3	TC74HC04AF
	IC2	AZQ1116
	TR1	AZQ1104
	D1- 3	1SS181
	SD1	AZQ1106
	LED1	AZQ1110

COIL AND FILTERS

	L1 (33mH)	AZT1219

SWITCHES AND RELAYS

	SW1	AZS1140
	SW3	AZS1141
	SW2	AZS1142

RESISTORS

	VR1 (5kW)	AZC2041
	VR2 (50kW)	AZC2042

OTHERS

	S1 SENSOR	AZP1163

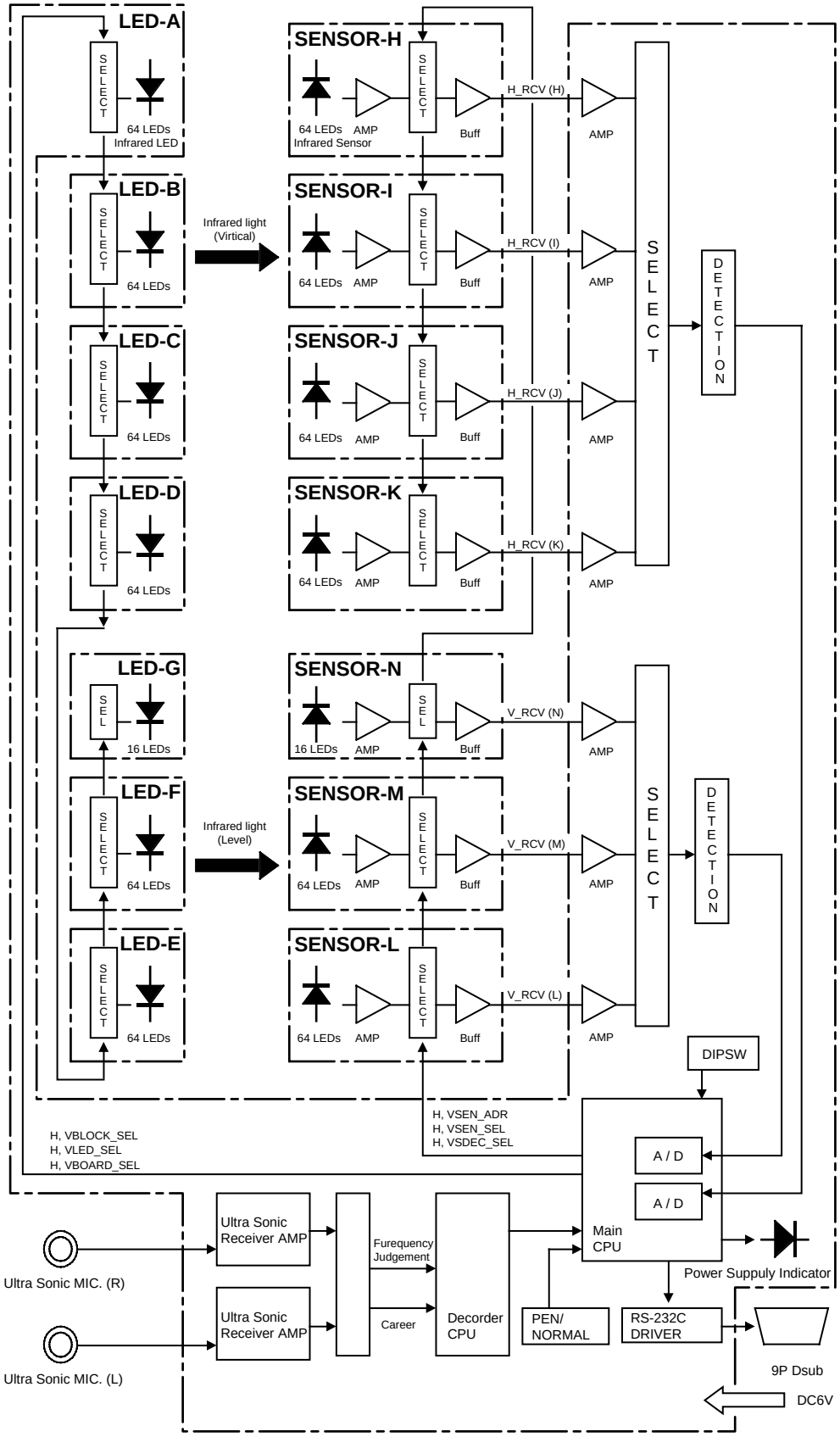
6. ADJUSTMENT

There is no information to be shown in this chapter.

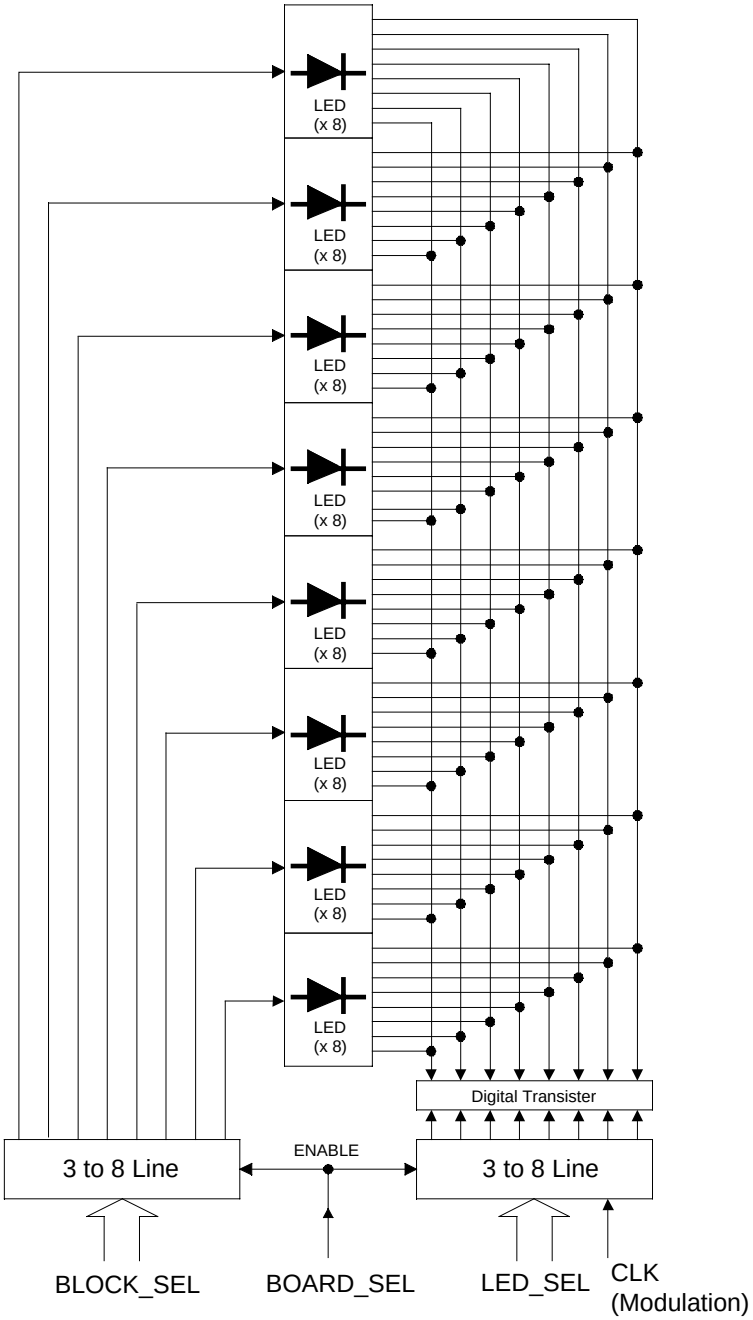
7. GENERAL INFORMATION

7.1 Circuit descriptions

7.1.1 Block diagram



7.1.2 Block diagram of ASSY for each LED-A to LED-G



The illustration shows the block diagram of the basic LED formation (applicable to LED-A to LED G).

For both horizontally and vertically formatted boards, the block structure is the same. If any of the three problems listed below are encountered, use the checkpoints listed below.

•If the unit length of the board is a problem

For a horizontally formatted board, the HBOARD_SEL signal may have been interrupted.

For a vertically formatted board, the VBOARD_SEL signal may have been interrupted.

•When there is a problem within the 8 LED unit

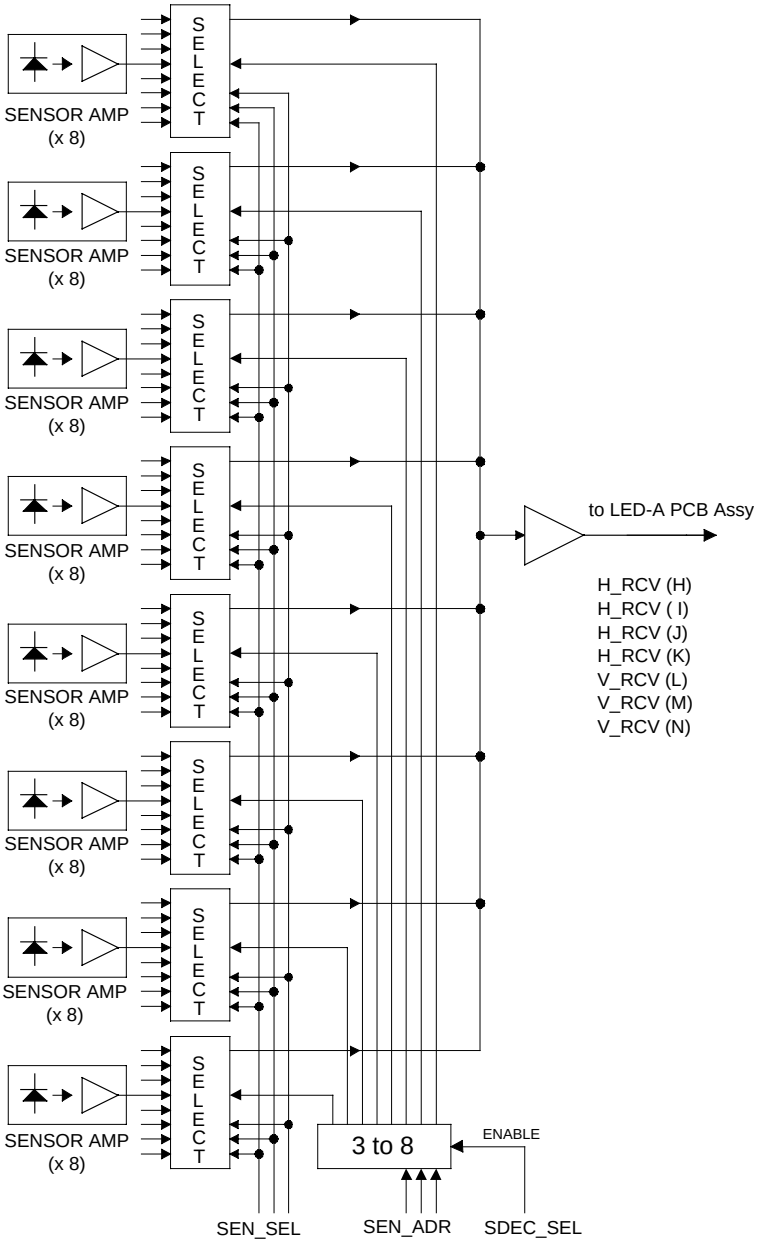
For a horizontally formatted board, the HBLOCK_SEL signal may have been interrupted.

For a vertically formatted board, the VBLOCK_SEL signal may have been interrupted.

•When there is a problem with the 8 LED sensor cycle

For horizontally and vertically formatted boards, the LED_SEL signal may have been interrupted.

7.1.3 Block diagram of ASSY for each SENSOR-H to SENSOR-N



The illustration shows the block diagram of the sensor board (applicable to SEN-H to SEN-N).

For both horizontally and vertically formatted boards, the block structure is the same. If any of the three problems listed below are encountered, use the checkpoints listed below.

•If the unit length of the board is a problem

For a horizontally formatted board, the HSDEC_SEL or H_RCV signal may have been interrupted.
For a vertically formatted board, the VSDEC_SEL or V_RCV signal may have been interrupted.

•When there is a problem within the 8 sensor unit

For a horizontally formatted board, the HSEN_ADR signal may have been interrupted.
For a vertically formatted board, the VSEN_ADR signal may have been interrupted.

•When there is a problem with the 8 LED sensor cycle

For a horizontally formatted board, the HSEN_SEL signal may have been interrupted.
For a vertically formatted board, the VSEN_SEL signal may have been interrupted.

8. PANEL FACILITIES AND SPECIFICATIONS

SPECIFICATIONS

Scanning system ..... **Infrared scanning**
Input connectors ..... **DC-IN jack (6 V, 1 A)**
Communication connector (RS-232C) ..... **9-pin D-sub**
Power switch ..... **Rocker type**
Power indicator ..... **LED**
Power ..... **DC 6 V**
Power consumption (DC 6 V) ..... **1 A**
External dimensions
(including plasma display, excluding pen stand)
..... **1,258 (W) x 758 (H) x 113 (D) mm**
Weight (excluding plasma display and pen stand) **5.9 kg**

AC Adapter

Input voltage ..... **AC 100–240 V**
Input frequency ..... **50/60 Hz**

Dedicated Pen

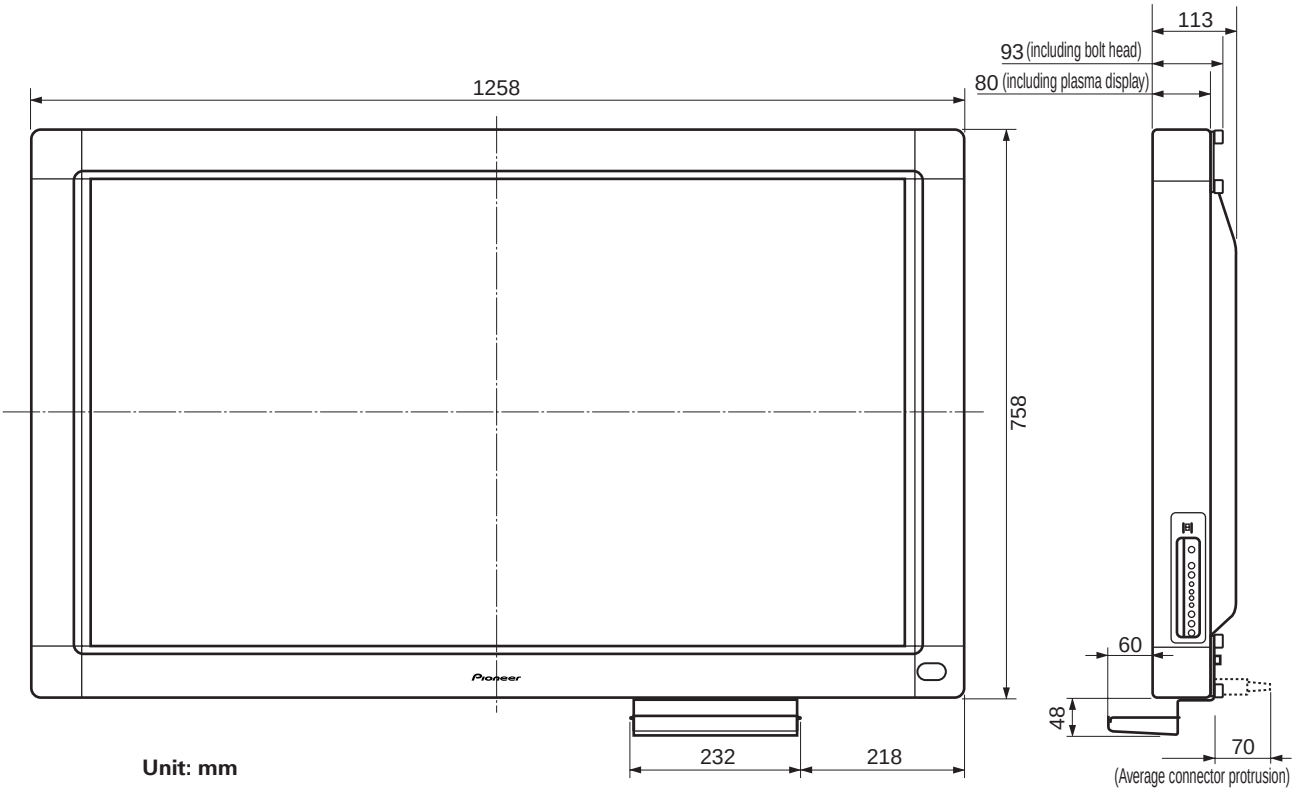
Transmission ..... **Ultrasonic wave**
Operation switches ..... **Pen tip (x1), Body (x2)**
Power ..... **AAA (LR03) alkaline battery x 1**
External dimensions ..... **27 (W) x 182 (L) mm**
Weight (including battery) ..... **55 g**

Accessories

Pen **1**
AAA (LR03) alkaline batteries **2**
Replacement pen tips **2**
Knurled fingerbolts **8**
Allen bolt **1**
Mounting bars **4**
Pen stand **1**
Self-adhering fastener tape sets **3**
RS-232C cable (3 m) **1**
AC adapter **1**
Power cord **1**
Operating Instructions **2**
Driver software disc **1**

- Specifications and appearance may change without notice.

<Dimensional Diagram>

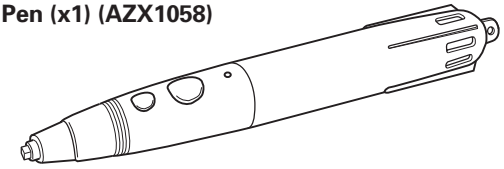


Unit: mm

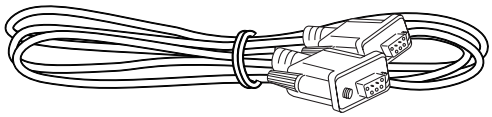
ACCESSORIES

Using this list, confirm that all accessories are present, and check them off one-by-one here ✔.

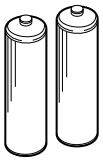
☐ **Pen (x1) (AZX1058)**



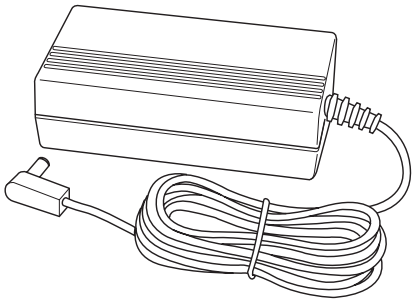
☐ **RS-232C cable (9-pin, straight, 3m) (x1) (AZD1110)**



☐ **AAA (LR03) alkaline batteries (x2)**

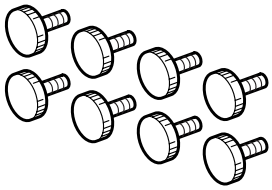


☐ **AC adapter (x1) (AZX1057)**

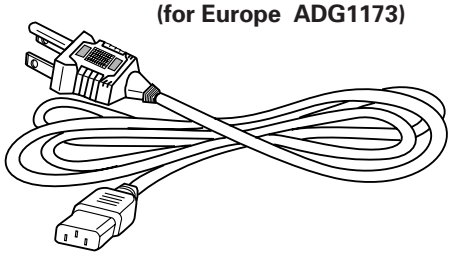


☐ **Replacement tips (x2) (AZE1119)**

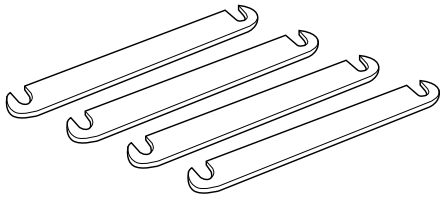
☐ **Knurled fingerbolts (x8) (AZB1443)**



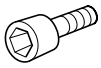
☐ **Power cord (x1) (for US AZD1114)**
(for Europe ADG1173)



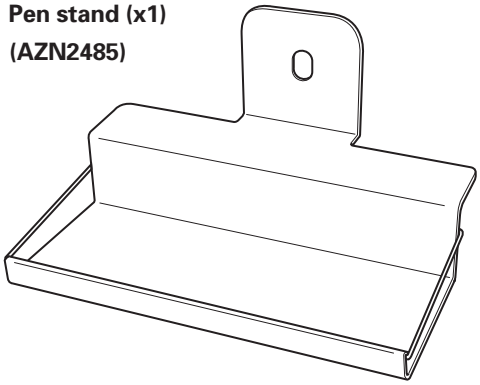
☐ **Mounting bars (x4) (AZN2486)**



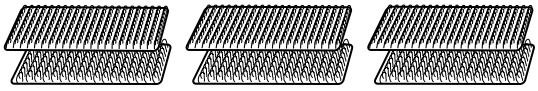
☐ **Allen bolt (x1) (SMZ80H200FNI)**



☐ **Pen stand (x1)**
(AZN2485)



☐ **Self-adhering fastener tape sets (x3)**

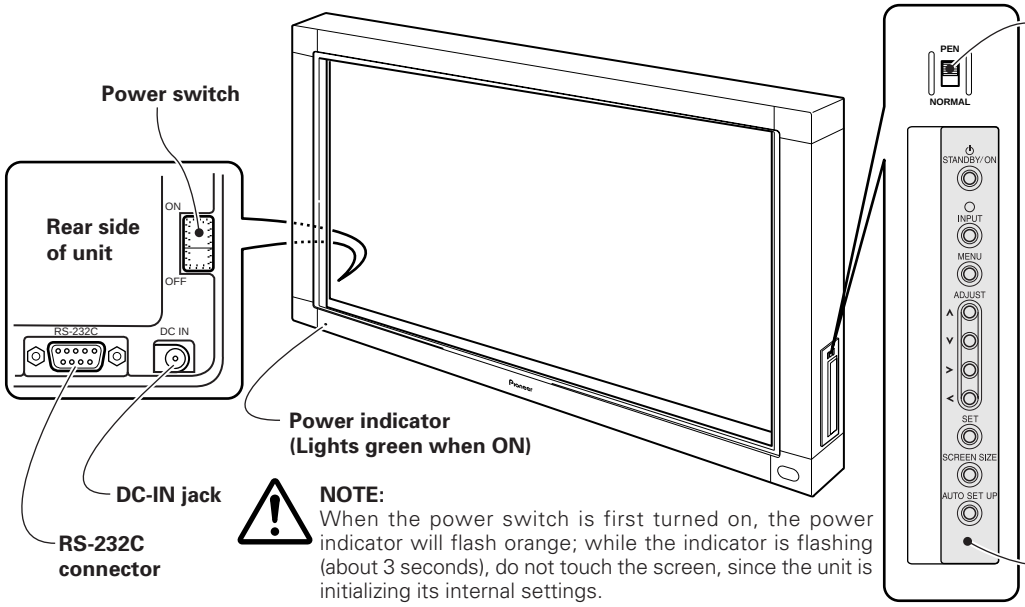


☐ **Operating Instructions (x2)**
(Japaniese, English, French, German) (AZR1053)
(Italian, Dutch, Spanish) (AZR1057)

☐ **Driver software disc (x1)**

NAME AND FUNCTION OF PARTS

<Main Unit>



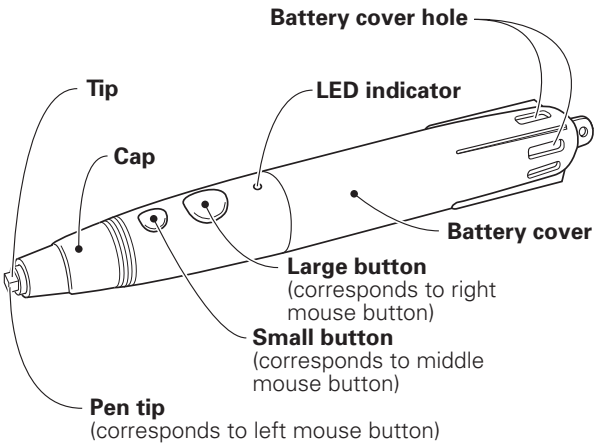
Mode selector switch
Set the mode switch in accordance with whether you will use the special pen or other device to input characters and lines on the screen.

PEN Mode:
In this mode, the special accessory pen can be used to write on the screen. Using the special pen allows the drawing of more clearly delineated characters and lines.

NORMAL Mode:
In this mode, your finger or other object can be used to write on the screen. This mode will produce lower screen definition, however, compared to drawing with the dedicated input pen.

NOTE:
When the power switch is first turned on, the power indicator will flash orange; while the indicator is flashing (about 3 seconds), do not touch the screen, since the unit is initializing its internal settings.

<Pen>



If pen operation becomes difficult:

The pen may fail to operate properly if the battery cover holes are blocked. Also, the pen may begin operating erratically when the battery becomes depleted. In this event, change the battery at your earliest opportunity.

Confirming Battery Life:
When the small button is depressed fully, an LED indicator will light. If the indicator fails to light, or lights only dimly, the battery is depleted and should be replaced.